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ABSTRACT

A study concerned with ways to increase occupational opportunities for women (but not intended as a study of sex discrimination) was undertaken to identify steps that can be taken to encourage young women to enter vocational areas that have been traditionally limited to males. Eleven vocational and comprehensive high schools were located that had enrolled at least five females in one or more nontraditional courses. Although these schools had no programs to encourage females to enter nontraditional areas, females were enrolled in such areas as vocational agriculture, printing, industrial chemistry, or television arts. Ten of the eleven schools were visited by members of the study team. In each, classes with females in traditionally male areas were observed and the teachers of these classes were interviewed. Interviews were also conducted with counselors, administrators, and small groups of traditional and nontraditional students. A local coordinator was selected at each school who generated a sample of current and former students (in both traditional and nontraditional programs). A total of 1,014 permission forms were distributed and completed questionnaires were obtained from 520 students (51%). Questionnaires were collected by mail from 356 of 743 former students (48%). Questionnaires focused on attitudes, experiences, career plans, and family background. Questionnaires dealing with education, occupation, and attitudes were also collected from 366 (67%) of the parents of student respondents. The report presents data analysis, findings, and conclusions in three parts: (1) Influences on the students' choice of a nontraditional program and examination of their school experiences and attitudes, (2) counselors' and teachers' perceptions of and attitudes toward nontraditional enrollments, and (3) postgraduation employment experiences of students. Questionnaires and interview guides are appended. (LAS)

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FINAL REPORT

Project No. V0134VZ
Grant No. OEG-0-74-1753

NONTRADITIONAL VOCATIONAL EDUCATIONAL PROGRAMS FOR WOMEN

A Research Project in Vocational Education
Conducted Under
Part C of Public Law 90-576

by

Morgan V. Lewis and Lynne Warfield Kaltreider
with the assistance of
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Institute for Research on Human Resources
The Pennsylvania State University
University Park, Pennsylvania 16802

November 1976

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PREFACE

In a previous study of vocational education in which the project director and principal investigator were involved and which was completed in February 1967, the authors found, with respect to women enrolled in vocational education programs, that they were generally satisfied with the skill training obtained in secondary schools. But the authors raised the question: "Has vocational education served females adequately?" This question was raised because while young women were well prepared for a few occupations, their choices were limited "by the prevailing stereotypes that restrict the vocational concepts of young girls. Few jobs are perceived as appropriate, and even these are considered subsidiary to the real female roles of wife and mother."

The senior authors of the study concluded that "It has been established for some time that there are no basic differences in intelligence between the sexes. When given the opportunity, women have proved they can handle almost any job that a man can. With the increasing demand for highly skilled individuals, society can no longer afford the waste of human resources caused by the prevailing limitations on the utilization of female abilities."*

It might be noted that these statements and conclusions pre-dated the resurgence of what has been popularly referred to as "the women's revolution" and Title IX. In effect, the seeds for the development of a proposal, and the actual conduct of this study, were in our minds about ten years ago.

A study of this type could not be conducted without the cooperation of school administrators, teachers, students, and parents. Their numbers are too numerous to be listed, but the omission of their names in no way diminishes our appreciation for their cooperation.

In the conduct of the study, we were fortunate to have the advice and participation as members of site visit teams of Mary L. Ellis, Mary Allen Jolley, and Carl J. Schaefer. On one site visit Everett Edington also assisted us. We obtained reactions to the report from Carl J. Schaefer and Lois S. Gray. These contributions both broadened our perspective and sharpened our focus. None of these persons is, of course, responsible for any of the conclusions and recommendations.

Morgan V. Lewis, as has occurred most frequently, bore the heavy burden of the conduct of the study and was ably assisted by Lynne Warfield Kaltreider. Others who assisted are listed on the title page. Naturally, the secretarial assistance of Bonnie Grove, Debra Schultz, and Cindy Layser contributed in a way which only researchers can fully appreciate. Rick Brewer and Sarah Crandall ably assisted in the computer work.

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*The above quotations are in Chapter 10 of The Role of the Secondary Schools in the Preparation of Youth for Employment, by Jacob J. Kaufman, Carl J. Schaefer, Morgan V. Lewis et al., Institute for Research on Human Resources, The Pennsylvania State University, 1967.

This preface would not be complete without noting that the very conduct of the study raised the consciousness concerning the role of women in our society, not only among those directly involved in the study but also among our colleagues in the Institute. This consciousness also spread among the many persons we met on our visits to the schools who cooperated in the study. This effect, though not revealed in the report, is one not to be ignored.

Jacob J. Kaufman
December 13, 1976

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EXECUTIVE SUMMARY

Overview

This study is concerned with ways to increase occupational opportunities for women, but it is not a study of sex discrimination. It was planned and conducted in order to identify steps that can be taken to encourage young women to enter vocational areas that have been traditionally limited to males. When the study was originally planned, its goal was to locate ten "pacesetter" secondary schools--schools that had succeeded in attracting young women into nontraditional areas.[1] Once such schools were located, they were to be studied to develop recommendations for procedures that other schools could adopt to increase female enrollments in nontraditional areas. To a degree the study achieved these goals, but not completely.

During the 1974-75 academic year, the study could not find any pacesetter schools. That is, the study did not locate any schools which had specific procedures or programs designed to encourage females to consider entering traditionally male occupations. What it did locate were eleven vocational and comprehensive high schools that had enrolled at least five females in one or more nontraditional courses, but these schools had no programs to encourage females to enter nontraditional areas. Nor were these females enrolled in "hard core" male programs (such as construction, metalworking, or auto mechanics), but in "gray" areas such as vocational agriculture, printing, industrial chemistry, or television arts. The study is thus based on vocational areas which, while identified as traditionally male in the respective schools, are not clearly identified as exclusively male occupations.

The distinction between the kinds of programs the staff had hoped to study and those that were actually found is crucial. The data that this study generated and the conclusions that were drawn from them emerged from schools that were not pacesetters, but neither were they typical. They did have significant numbers of females enrolled in nontraditional areas, and some characteristics of the schools, the communities, or the students themselves must have been responsible. This study tried to identify these characteristics.

In general, the similarities between traditional and nontraditional students were much more numerous than the differences. There was little to suggest that the students who entered nontraditional areas were exposed to a particular combination of experiences in their families or in their schools that led to their choices. Nor does it appear that taking nontraditional courses had a major impact on the way that students were treated in school or after graduation. Some differences were found, of course, between the traditional and nontraditional students, but overall, the similarities dominate.

It should not be inferred, however, that these schools and their students are typical of all schools. For example, the interviews with teachers of traditionally male courses revealed that they had relatively little resistance to females entering their courses. Would these same attitudes have been found in schools without females in these courses? It seems unlikely. The receptivity of the teachers undoubtedly played a role in the decisions of students to enter the courses. The sample schools probably represent the lowest level of resistance to females that can be found in public high schools. Nevertheless, even in these schools, very few females were found in hard-core male courses.

If one were to generalize from the nontraditional courses that were studied, the conclusion would be that it is relatively easy to overcome sex stereotyping in vocational education. A program to do so should include renaming courses and reorienting them slightly to broaden their appeal; informing students, educators, and parents of the realities of the working lives of women; and providing guidance for and exposure to nontraditional occupations. If such a program were followed, the data from the present study indicate that females will respond, that they will enter nontraditional courses, and that they will feel accepted by their classmates. After being graduated from high school, they will find jobs that are related to their training about as often as their traditional classmates do, and they will be satisfied with their jobs and the preparation that their high schools provided.

But will such generally positive outcomes occur when such programs are tried in less receptive schools? Would such schools be willing to make even the modest efforts outlined above? What would be the response to females who enrolled in masonry, automotive body repair, plumbing, or other hard core male programs? Would females who completed these courses find related jobs? The present study could not answer these questions because it was conducted in receptive schools, and even in these schools significant numbers of females were not enrolled in hard-core male courses.

The study did identify some procedures which should make some vocational areas more attractive to females. Even if these measures were adopted and pursued vigorously, however, they would have little immediate impact on sex-role socialization in the family, or the allocation of the sexes in the labor market. These will continue to be the major influences shaping the careers of women. Nevertheless, the public schools can play a vital role. As the major intermediary between the family and the labor market, the school can stimulate changes in both. By exposing females to nontraditional occupations, the schools can cause families and employers to question assumptions and practices which have limited the opportunities of young women. Whether this questioning will lead to positive action, especially on the part of employers, only time will tell. Fortunately, the schools do not have to wait. They can begin now and this study provides some guidelines on how to begin.

Conducting the Study

The Sample

The departments of education in each of the fifty states were contacted and asked to provide the names and addresses of any vocational or comprehensive high schools in which five or more females were enrolled in a traditional male vocational program in the 1973-74 school year. Forty-seven of the states responded, although three declined to furnish any information, and thirteen other states either stated that they had no such schools or sent information on schools which were not suitable for the study. (Their programs were not really vocational, e.g., courses designed to familiarize females with simple car repairs.) When the study team followed up on the schools suggested by the remaining states, it was found that a large number of them did not meet the study's criterion of five or more females in a nontraditional course. Only sixteen schools were found which did meet the criterion, although due to the difficulty in obtaining accurate enrollment data, others may not have been located. Eleven of these schools, in regions with diverse socioeconomic characteristics, served as the study sample. The programs included, however, were not as hard core as those the study team hoped to find, since very few crossover enrollments took place in hard core male programs like auto mechanics. Categorization of the programs, moreover, occasionally differed from school to school, since a traditionally female program in one school was traditionally male in another.

Ten of the eleven schools were visited by members of the study team. In each of the ten schools, classes with females in traditionally male areas were observed and the teachers of these classes were interviewed. Interviews were also conducted with counselors, administrators, and small groups of traditional and nontraditional students.

A local coordinator was selected at each school who generated a sample of current and former students (in both traditional and nontraditional programs). It was necessary to obtain parental permission before administering questionnaires to current students under the age of eighteen. A total of 1,014 permission forms were distributed, and completed questionnaires were obtained from 520 students (51 percent). The questionnaires to former students were collected by mail and by personal follow-up of half of the nonrespondents to the mailings. Usable questionnaires were collected from 356 of the 743 former students (48 percent).

The Instruments

The questionnaires administered to current and former students focused on their attitudes, experiences, and career plans. They also requested background information on household tasks the students performed and toys the students played with as young children. Parents of those current students who had completed and returned questionnaires were also asked to fill out a questionnaire which asked about their education, occupation, attitudes toward male and female roles, and which included other questions about their children. Three-hundred and thirty-six usuable questionnaires (67 Percent) were obtained from 505 parents after two mailings.

Major Findings

Influences on Career Decisions

Family Background. Very little of the information collected on family background indicated that the experiences of the nontraditional students differed greatly from those of traditional students. Their socioeconomic backgrounds were comparable and the kinds of toys they played with and household tasks they performed were similar. Most of the toys and tasks were clearly identified by both the students and their parents as male or female. There was no evidence, however, that students who entered nontraditional courses were more likely to play with the toys or perform the tasks typically associated with the opposite sex.

One aspect of family background in which differences were suggested concerned the career awareness of parents. The parents of nontraditional females appeared to be a little more knowledgeable about and supportive of the career choices of their daughters than the parents of traditional females. Virtually all parents, however, were satisfied or very satisfied with the career choices of their children.

Influence on Course Choice. Most students reported having taken part in a variety of school-initiated guidance activities or personal discussions concerning their choice of courses. Three-fourths or more of those who reported these experiences usually rated them as at least a little helpful. In general, however, the respondents did not see themselves as strongly influenced by any particular experience or individual. Instead, they reported having made independent course choices mainly to study things of personal interest or to prepare for employment or postsecondary education.

A multiple regression analysis of possible influences on the choice of nontraditional courses revealed two factors to be clearly related: nontraditional females were more likely to attend separate vocational schools than comprehensive high schools, and nontraditional males were more likely to be nonwhite. These relationships were found for both current and former students.

Counselors and Teachers. The interviews with counselors and teachers tended to support the students' reports of independent course decisions. None of the counselors or teachers reported that they encouraged students to consider nontraditional occupations. In fact, many of the counselors said that when students indicated interest in nontraditional courses, they "probed" to be sure the interest was serious. Such probing could, of course, discourage some potential enrollees.

While counselors, in general, did not think it appropriate to attempt to influence students' choices of courses or curricula, in many cases their actions (or inaction) can have this effect. In one vocational school, for example, a counselor reported that applications for the automotive mechanics shop were received from females at five different sending schools. These were all rejected, individually, on the grounds that one female in the shop might be disruptive. If the counselor had accumulated the five, even the weak (and illegal) grounds on which the individual applications were rejected would have been nullified.

As a group, though, counselors appeared to be more aware than teachers or administrators of the problems of providing equal opportunities to females. Only one-third of the counselors were satisfied with the vocational guidance material available to them, much of which was blatantly sex stereotyped. In those cases in which changes had been made to overcome traditional sexist practices, such as having prospective students visit only "male" or "female" shops, it was usually the counselors who had initiated the changes.

While there was little overt resistance to having females in their classes among the teachers interviewed, neither did there appear to be much enthusiasm. Most of the teachers did not consider equal opportunity for females an issue of concern, and they had few ideas about or awareness of how vocational education could be used to increase the probability of job success for nontraditional students. When asked about differences between male and female students, the teachers often cited stereotyped traits and attitudes--females are neater, keep the language purer, sexual attraction causes problems, and males are more mechanically inclined. They did not, however, expect any entry level skills of students in their classes, so the latter could hardly be cited as an excuse for excluding females. Moreover, none of the teachers indicated that they encouraged their students to think and talk about the effects of nontraditional enrollments in their classes. Overall, the teachers saw more positive then negative aspects of having females enrolled, but this was rarely reflected in efforts to increase female enrollment.

Consequences of Choosing Nontraditional Courses

The students who entered nontraditional courses generally reported having positive expriences in them. For the most part, they felt accepted by their teachers and classmates, found the things they studied to be interesting, and were satisfied with the education they received. The females in traditional male areas, however, were a little more likely to report some problems. In comparison to traditional females, the nontraditional students felt that they lacked background in the areas they were studying, thought their courses were hard to understand, and found their teachers' attitudes toward them to be neutral rather than encouraging.

Taking nontraditional courses did not appear to have much impact on the jobs the former students obtained after leaving school or on their satisfaction with them. Somewhat surprisingly, if one expected greater career commitment among nontraditional females, more of them were housewives than were traditional females. Perhaps they were unable to find employment in their chosen fields. The difference, in any case, was not large, and taking nontraditional courses was not associated with increased unemployment or other significant differences in activities engaged in after leaving high school.

The types of jobs students obtained, however, did differ. Nontraditional females tended to have more professional, technical, and semiskilled jobs than clerical or service jobs, and nontraditional males were more likely to hold clerical, sales, and service jobs than semiskilled or farm jobs. These findings indicate that the current nontraditional female students' preferences for professional-technical, rather than clerical jobs, may be met when they actually begin to work. Very few of the respondents reported encountering any employer prejudice against women.

Only about one-third of the respondents found jobs that were related or highly related to the skills they studied in high school, about the same proportion who rated their high school preparation for their jobs as good or excellent. However, at least three-quarters of the respondents in each group were satisfied or very satisfied with their jobs, which implies that job satisfaction is only marginally related to high school preparation. Male students tended to work more often after graduation than the females, and they also received higher pay. Overall, however, except for the types of jobs obtained, differences in work experiences between former traditional and nontraditional students of the same sex were negligible.

This lack of differences may be a positive indicator. Nontraditional students did not have more successful job experiences, but they did not have less successful experiences, either. As noted in the Overview, these students were not in hard-core male occupations, and students who prepare for such fields may experience more difficulty. Based on the results from this sample, however, there is no need to warn nontraditional students that they will have difficulty in obtaining jobs, or to deter them from pursuing nontraditional studies. Some of them will indeed have trouble securing jobs which are related to their courses of study, but no more so than traditional students.

There is reason to doubt whether obtaining training related to employment is an appropriate criterion for evaluating vocational education. One of the strongest impressions that arose from the total study was that the choice of nontraditional programs was not an especially significant event in the lives of the students who were studied. Nor did these students seem to see or expect a great deal of relationship between what they did in high school and what they did after they left. When they were in school they had to study something, and it appears that they "just happened" to make choices that a group of people from a university considered important enough to investigate. Few of the students saw themselves as doing anything special, and most of them--traditional or nontraditional--did not have strong vocational goals. Very few held their schools accountable for what happened to them after they left school.

Recommendations for Schools

The following recommendations are the outcomes of the study team's observations and findings. With the passage of the Education Amendments of 1976, funds will be available, beginning in 1977, for activities and actions such as those recommended here for elimination of sex discrimination and sex stereotyping in vocational schools.

Vocational options must be expanded for all students regardless of sex, not just for a few females interested in auto mechanics or a few males interested in home furnishings. Efforts to increase the number of students enrolled in nontraditional programs should not become a simple "body count," typified by the attitude of one counselor who stated that his goal for the following year was to have one female in each traditional male vocational program. Instead, such efforts should focus on helping students to choose vocational programs on the basis of interest and prospects for obtaining fulfilling employment, regardless of sex. All school personnel should be involved in efforts to expand the general awareness of sex stereotyping, its effects, and the means to eliminate it. Moreover, it must be stressed that efforts which involve school personnel alone are not as likely to be successful as those which include parents, students, and other members of the community. Federal legislation and guidelines may provide the initial incentive for state and local programs, but in order for the programs to succeed, they must have the support of those people most directly involved in and affected by them at the local level.

The suggestions for expanding occupational opportunities which follow are grouped by topic or person most directly involved. They are a product of the interviews which were conducted at the sample schools and the observations of the visiting teams. These recommendations could be implemented by schools as part of their efforts to widen the vocational options of their students.

Counselors

Counselors' potential impact on vocational choices of students is discussed in detail in Chapter 6. The suggestions which follow are designed to assist counselors in developing the awareness of sex stereotyping that is necessary to provide unbiased guidance to their students.

1. Counselors need to be familiar with and have access to career materials and employment data that demonstrate the importance of careers to female students; e.g., the fact that most women will work outside the home, that many women will need to work, that traditional female jobs pay less and provide less opportunity for advancement than those jobs typically held by men. These data are available in this report, from the U.S. Department of Labor (Women's Bureau), in the U.S. Census Report entitled A Statistical Portrait of Women in the U.S.; and in several sourcebooks designed to eliminate sex discrimination (see bibliography at end of Chapter 6).

2. Counselors need to listen to the statements they make to students concerning occupational plans and be able to evaluate these statements for sex bias. Examples of such statements were provided by Pietrofesa and Schlossberg in their study of counselor bias.[2] (NB) denotes negative bias, (PB) denotes positive bias.

(NB) "Money isn't everything." (PB) "You could make much more money as an engineer."

(NB) "Would your husband resent your becoming an engineer?" (PB) "Being an engineer would not interfere with your becoming married."

3. Counselors need to be aware of the possible sex bias of the interest inventories they are using. The National Institute of Education (NIE) has drawn up guidelines for assessing sex fairness in career interest measurement (see bibliography, Chapter 6). If materials currently in use do not meet the sex fairness test, they should be replaced or used with appropriate modifications. Such modifications could include informing the students that not all vocational options actually available to them are included on the particular test.

4. Counselors need to seek career materials which are not sex stereotyped. Such materials are gradually becoming available (see bibliography, Chapter 6). Counselors could contact publishers to inform them of their desire to have nonsexist career materials available for purchase.

   Sex-biased materials in use should be revised when possible. When revisions cannot be made, the sex bias should be pointed out to students who are using the materials.

   Counselors might consider stamping sex-biased career materials with the statement "Please read 'he or she' wherever this booklet now suggests that only men (or women) enter the field described herein. In fact, women (or men) can and do perform in this occupation."

5. Counselors should be encouraged, and perhaps subsidized, to attend workshops which focus on sexism in education. A number of such workshops are being offered by state education associations, women's groups, and professional organizations. (Funds for such activities will be available under Title II of the new Education Amendments.)

6. Counselors and students should be aware of the fact that taking a nontraditional course does not appear to lead to special difficulties. This study's sample of former students who had completed nontraditional vocational programs revealed that nontraditional students did not suffer as a result of electing these programs--in terms of job satisfaction, wages, rate of unemployment, or their recollection of treatment in their vocational classes.

7. Career Fairs seem to be a useful way of disseminating information about occupations to students. In planning such programs, counselors should consider the use of nontraditional role models.

8. All counselors should have a working knowledge of Title IX and other legislation dealing with discrimination in education and employment.

9. Counselors should work with subject-area advisory committees when possible to keep themselves up to date about current working conditions in the field.

10. Counselors at area vocational schools should work with counselors from the sending schools so that information about the availability of all programs at the area facility is transmitted to all prospective students.

11. As far as possible, counselors should keep in touch with prospective employers in an effort to communicate the need for them to consider students of both sexes for any particular job.

Teachers

Because classroom teachers have daily contact with their students, their role in accepting and promoting nontraditional enrollments must not be minimized. The observations made by the visiting teams at the sample schools support this contention. The following recommendations may help to increase teachers' awareness of and willingness to work against sex stereotyping.

1. Teachers, like counselors, should be encouraged to attend workshops on sex bias.

2. Teachers need to learn how to discuss nontraditional enrollments in their classes without making the nontraditional students feel they are on display or being used as guinea pigs. (This can be a problem when the nontraditional student outperforms the students of the traditional sex.) One of the students who was interviewed said, "We shouldn't have to feel that these nontraditional courses are odd--we really don't want to stick out like a sore thumb." The goal must be to minimize sex differences, not to pit one sex against the other.

3. Teachers need to know that research has revealed that their expectations can influence the achievement levels of their students.[3] When teachers act upon long-held beliefs about sex differences which research has shown to be myths, they may reduce the potential achievement of their nontraditional students.[4]

4. Teachers need to examine their own attitudes and actions in the classroom. They must be careful to assign similar tasks and projects to their nontraditional and traditional students. Even small sex distinctions made by the teacher may be perceived as unequal treatment by students. One nontraditional

female student complained, "The teacher really over compensates for the girls. For instance, I started one day to unstack some chairs, and the teacher practically had hysterics. He immediately rushed over to unstack them for me." Another nontraditional student noted, "The teacher really tries to be super. He sort of feels sorry for girls. He gives us better grades than boys, and he lets us chew gum...The boys recognize that we get special treatment."

5. Teachers should review all of their course material and remove sexist language wherever possible. Instead of referring to the hypothetical student as "he," use the plural "they" when possible; he/she when required. If such revisions cannot be made because of printing costs or time restrictions, teachers should call the questionable items to the students' attention, thereby using the materials as devices for increasing awareness of sex stereotyping. For future use, nonsexist materials should be sought.

6. More vocational teachers of the nontraditional sex need to be recruited in order to provide role models for prospective students. The pool of prospective nontraditional employees may be small at the present time, but as opportunities expand, the supply may increase.

7. As advisers to various student organizations, (e.g., Future Farmers and Future Homemakers of America) teachers can encourage programs, discussions, and projects which will increase students' awareness of career possibilities and existing conditions in the particular field, such as median salaries, opportunities for advancement, sex discrimination in certain jobs, changes in family life and child care, etc.

8. Teachers should meet as a group to discuss sex stereotyping, its implications, and possible strategies to reduce it in their classes.

9. Teachers should be aware of working world problems in their own vocational areas.

10. Teachers should be encouraged to utilize outside resources, e.g., trade unions, women's groups, former students, parents, and employers to provide information about occupations and traditional and nontraditional workers.

Librarians

As noted, counselors and teachers may be able to use instructional materials to increase awareness of sex stereotyping by discussing sexist references or language with students. School librarians probably have less direct contact with students, but most libraries have bulletin boards, "new book" shelves, and/or display cases which can be used to convey information and heighten awareness of occupational stereotyping and its limitations.

1. Librarians should purchase and display nonsexist occupational materials (books, pamphlets, posters, etc.). A display which contrasts sexist with nonsexist career materials could alert students to changing conditions in the world of work.

2. Librarians might provide exhibits which focus on particular careers, being sure to include materials which show both sexes performing in the same occupation. I Can Be Anything, by Joyce Slayton Mitchell is an excellent source for pictures of women performing in many traditional and nontraditional occupations (see bibliography, Chapter 6).

3. Librarians should be sure that their schools are on the mailing list for publications from the Women's Bureau of the U.S. Department of Labor.

Students

School personnel who are interested in promoting career selection on the basis of interest and aptitude rather than on sex-based probabilities must take into account the influence of students on each other. Data from the present study revealed that male students were the greatest critics of both nontraditional females and nontraditional males. Peer pressure of this sort must be recognized. The recommendations listed below suggest ways in which students can support each other in their vocational course selections.

1. Former students who have successfully entered a nontraditional field should be viewed as resources for current and prospective vocational students. For example, on a Career Day, one female and one male graduate who are working in the same field could share their experiences with current students.

2. Nontraditional students need support from each other. Many young women and young men lack the courage to be pacesetters and therefore enroll in "second choice" traditional vocational programs (see Chapter 5 of this report).

   At one school, for example, several students reported, "Girls do have difficulty in getting into some of these courses--primarily from teachers, counselors, and parents. We took agriculture because the four of us agreed in advance that we would stick together. We did it...in spite of negative feelings from counselors, parents, and fellow students."

   Support for the students' contention of external resistance came from a counselor who told the visiting team that some teachers are "leery" about admitting one female (or one male) into a nontraditional class.

3. Current nontraditional students can be used to visit "sending schools" to recruit prospective students. They can answer questions and help to allay the concerns of prospective nontraditional students.

4. When prospective students tour a vocational facility, all students should see all shops. During such tours, any nontraditional students should be in evidence. If a presentation is included as part of the tour, these students should be involved. Teachers should stress that both sexes are welcome in any program.

5. Applications from students of the nontraditional sex should be compiled. As noted earlier, one area vocational school received five applications to enter auto mechanics from females in five different sending schools, but each was turned down because of instructions from the teacher, who did not want only one female in his class. (This, of course, is illegal under Title IX of the Education Amendments of 1977).

Printed Materials

The following recommendations deal with materials commonly found in schools that can influence students' perceptions of "appropriate" sex roles.

1. School newspapers can (a) include articles on job opportunities in nontraditional fields, (b) conduct interviews with graduates who have entered nontraditional fields, and (c) insert statistics on median salaries in various fields.

2. Displays (in lobbies, libraries, etc.) should present nonstereotyped depictions of courses and activities.

3. Other printed materials:

   a. Nonsexist career materials should be included in each school library and counselor's office (see bibliography at end of Chapter 6).

   b. Handbooks, program descriptions, course syllabi, etc., should be free of sex stereotyping. For example, a question found in a teacher's handout in a foods class contained a question which is probably irrelevant for most of the females, and certainly irrelevant for the males: "Is your skirt length appropriate?"

   c. More information about potential salaries and job opportunities should be included in vocational program handbooks.

d. Newsletters to parents could be used to inform parents about sex stereotyping and its possible consequences for their children.

Curriculum

Revising printed materials, as discussed above, can be time-consuming, but these revisions can be made more easily than changes in curricula. School districts or individual schools which sincerely desire to expand vocational options for all students might want to consider some or all of the following:

1. Change sex-stereotyped course titles to nonsexist ones. This recommendation is one of the simplest to implement, and based on the experiences of the sample schools, it is surprisingly effective in reducing sex segregation in vocational enrollments. Schools report that even with little, if any, content revision, changing a Vocational Agriculture program to Earth Environment Occupations, Bookkeeping courses to Accounting, or Cooking classes to Food Production and Management have substantially increased the number of nontraditional enrollments in these programs.

2. Provide an unbiased career guidance program which begins in the elementary school so that students are exposed to the range of vocational opportunities long before they must make a choice.

3. Institute a mandatory integrated home economics/industrial arts course--perhaps to be called "Survival Skills"--in junior high school, which can help to break down stereotyped attitudes concerning "appropriate" courses, occupations, and roles for each sex.

4. Allow students to take introductory vocational courses as electives early in their high school years, and familiarize students with career options which are available in the field. Some of the sample schools allowed students to take vocational agriculture courses under such a plan. Several females continued in the program as a result.

5. Institute flexible programs which facilitate exploration of a number of vocational and occupational options. One member of the visiting team hypothesized that the more nearly a vocational program represents a cluster of occupations, the more attraction it has for students of the nontraditional sex. When several occupations are clustered, students are more likely to perceive opportunities not readily apparent in more narrow vocational programs.

6. Offer anticipatory socialization programs to students who are about to enroll in a nontraditional vocational area.

7. Offer a Work and Living Options course which integrates information usually provided in separate World of Work and Family Living courses. Such a course could help students to anticipate the probable interaction of their future work and personal lives.

School Administration

Counselors, teachers, librarians, and other school personnel can implement the preceding recommendations, but the school's administration should provide innovative leadership which fosters and supports efforts to overcome sex stereotyping. The suggestions which follow affect more than a school's vocational programs, but only when the overall tone of the school is positive can individual school programs be truly successful.

1. Institute an Affirmative Action program. In employment and enrollment recruiting, people of the nontraditional sex should be actively sought. In a number of the sample schools, the nontraditional enrollments appeared to have "just happened." An affirmative action policy calls for active, deliberate recruitment.

2. Establish open forums on sex stereotyping which include parents, community leaders, and employers as well as school personnel. The data from our study support the need for schools to work more closely with parents to familiarize them with the broad spectrum of occupations available to all students. One nontraditional female student noted in a group interview, "Parents sometimes get the wrong ideas about nontraditional courses in terms of girls. My dad thinks I'm in architectural drafting just to be around a lot of boys."

3. Employ competent women in nontraditional positions in the school.

4. Be willing to commit the time and resources necessary to provide a nonsexist environment. Then establish goals and objectives for same.

5. Encourage inservice training for teachers and counselors and hold workshops and seminars to sensitize staff to the issue of sex stereotyping and to help them develop ways of dealing with the problem.

6. Meet with equal rights groups to publicize the school's concern with the issue and to use their expertise in working to reduce sexism.

7. Review all school policies and revise those which discriminate against women. Certification requirements for teachers could be revised to require the taking of at least one course on sexism in education.

Policy Implications

The Department of Health, Education, and Welfare enforces Title IX of the Education Amendments of 1972 primarily through voluntary compliance. It requires the state and local education agencies that receive federal funds to specify objectives in detailed plans for eliminating sex-role stereotyping in vocational educational admissions and enrollment policies. The plans must also include policies and procedures for eliminating bias in locally developed curricular materials and a discussion of the type of grievance procedure to be established by the recipient institutions to ensure prompt attention to complaints.

Accountability and Incentives

A simple listing of objectives intended to eliminate sex-role stereotyping does not guarantee results; federal policy holds states accountable for actual implementation of programs. At the present time, federal policies have had too little effect on the quality and seriousness of efforts to implement programs, despite recent evidence which indicates that the means for implementing federal programs in local institutional settings are much more important in effecting change than federal influence on program initiation.[5] This situation may be remedied as a result of the passage of the new Education Amendments of 1976, which provide funds for the elimination of sex discrimination and sex stereotyping in the nation's schools.

An incentive system that restricts vocational educational funds to institutions that work to eliminate sex-role stereotyping appeals to the self-interest of institutions and can help to accelerate change. For example, potential budget increases can make proposals for innovation--such as programs to expand occupational opportunities--more attractive to educational agencies. Internal organizational support for the innovative program is another determinant of its success.

The innovative effort is most likely to succeed: (1) the greater the extent to which the major actors in the implementation process are drawn from within, rather than outside the accountable agency; (2) the greater the say they have about how the program will be implemented; and (3) the greater the degree to which the major actors in the innovative process are perceived as being competent. In addition, administrative support for the new program strongly affects its probability of incorporation.[7]

Program Planning

Ideally, all of the individuals who are responsible for implementing the new policy or programs (such as teachers and counselors) should participate throughout the planning process. In addition, all of those who may be affected by the program (such as community and student representatives) should participate in some way. They should be familiar with local plans for eliminating sex discrimination and sex bias in vocational education. (Projects such as EVE in Houston, Texas, and the New Pioneers Project, operated in conjunction with the North Carolina State Department of Public Instruction, are useful for increasing teacher and counselor awareness of the existence of sex-role stereotyping in the schools. See Appendix A.)[8] It is also important that those who are responsible for enforcing sex discrimination legislation monitor the programs after they are incorporated and not merely at the initiation stage. Finally, delays in implementation should be avoided.[9] Title II of the Education Amendments of 1976 contains certain provisions that will facilitate local representation in the planning process, and receipt of funds for continuation of programs will be upon annual accountability reports.[10]

Conclusions

The effort to achieve career selection on the basis of students' interest and aptitudes rather than their sex must have the support of the school administration and ideally should include all school personnel as well as parents, students, and other members of the community. A single committed counselor or a single committed vocational teacher can make a difference, but the difference will probably affect only those students with whom that person comes into contact. For a lasting change in the educational program, commitment of all involved parties is required.

The recommendations listed above are not all-inclusive. There are undoubtedly a host of other actions which interested people can take. Rather, these suggestions are meant as a stimulus to further action.

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[*] The Education Amendments of 1976 were enacted into law October 12, 1976, P.L. #94-482

FOOTNOTES

[1] Some of the terms used in this report may be unfamiliar. A few definitions are in order.

Sex-role Stereotyping--the unconscious or conscious values and assumptions which stereotype the sexes and channel females and males into those attitudes, interests, activities, and goals considered "appropriate" for their particular sex.

Sexism--any attitude, action, or institutional structure which systematically subordinates a person or group on the basis of gender.

Nontraditional Students--students who are enrolled in courses or programs which are not typical for their sex; e.g., males in home economics or females in vocational agriculture. Since the present study found very few females who were enrolled in hard core male programs, and because in some instances a program which was typically male in one school was not in another, the judgment of local coordinators and past enrollment patterns were relied upon to determine whether a program was nontraditional for males or females.

Traditional Students--students who are enrolled in courses or programs which are typical for their sex.

[2] John J. Pietrofesa and Nancy K. Schlossberg, "Counselor Bias and the Female Occupational Role," in *Women in the Society and Economy*, Nona Glazer-Malbin and H. Y. Walker, eds., (Chicago: Rand McNally, 1971).

[3] Robert Rosenthal and Lenore Jacobsen, *Pygmalion in the Classroom: Teacher Expectations and Pupils' Intellectual Development* (New York: Holt, Rinehart, and Winston, 1968).

[4] Eleanor Maccoby and Carol Jacklin, *The Psychology of Sex Differences*, (Stanford, California: Stanford University Press, 1974).

[5] Paul Berman and Milbrey Wallin McLaughlin, *Federal Programs Supporting Educational Change, Vol. IV: The Findings in Review*, R-1589/4-HEW (Santa Monica: Rand, April 1975), p. 24.

[6] Robert K. Yin *et al.*, *A Review of Case Studies of Technological Innovations in State and Local Services*, R-1870-NSF (Santa Monica: Rand, February 1976), p. 119.

[7] *Ibid*. See also Michael Radnor *et al*. "Implementation in Operations Research and R&D in Government and Business Organization," *Operations Research*, Vol. 18 (November-December 1970), pp. 967-991 and Richard S. Rosenbloom and John R. Russell, *New Tools for Urban Management*, Harvard Business School, 1971.

[8] For a description of this project see *The Federal Education Project Newsletter*, May 1976, pp. 1-4 or Appendix A of this report.

[9] Yin, *op. cit*., p. 119. See also Ernest R. House, *The Politics of Educational Innovation* (Berkeley: McCuthan Publishing Corporation, 1974) and Neal Gross *et al*., *Implementing Organizational Innovations: A Sociological Analysis of Planned Educational Change* (New York: Basic Books, 1971), pp. 195-216.

[10] House of Representatives Report No. 94-1701, (September 1976).

PART I
THE CHANGING ROLE OF WOMEN

CHAPTER 1

THE CHANGING ROLE OF WOMEN IN THE WORLD OF WORK

Introduction

Because nine out of ten women now in secondary schools will work outside the home at some time during their lives, and often for most of their lives, young women need counseling and training that will enable them to obtain fulfilling jobs that pay well and offer prospects for advancement. Recent government data indicate an increasing need for noncollege-educated workers with vocational or technical training in a number of fields, including lithographic (offset) printing, computer programming, photo lab occupations, welding, sewage plant operations, cosmetology, cement masonry, sheet metal work, electrical repair, mechanics, food processing, and health occupations.[1] Many of these fields have effectively excluded women or have not been considered desirable by women themselves. In recent years, however, socioeconomic changes and legislation and court decisions which mandate nondiscriminatory practices in education and hiring have begun to clear the way for women to participate in nontraditional occupations.

This study attempts to discover whether women are being enrolled and how well they are being trained in secondary school vocational programs which prepare them for traditionally male occupations, as well as with ways to increase their participation in these programs. This chapter provides a perspective for the study by presenting information relevant to the changing role of women in the world of work.

Socioeconomic Changes

Women continue to enter the labor force in steadily increasing numbers. In 1920, about 20 percent of the labor force were women; by 1975 almost 50 percent of all women between sixteen and sixty-four were either working or seeking work (see Table 1-1). Forty percent of all married women now work outside their homes. Over the last decade, the number of female-headed households increased considerably. Ten years ago, one out of every ten families was headed by a woman; in March 1973, the figure was one in eight.[2] Forty-two percent of women workers were single, widowed, divorced, or separated in March 1973. An additional 19 percent had spouses who earned less than

TABLE 1-1

Women in the Labor Force, Selected Years, 1900-75

Year	Women in labor force (thousands)	Women in labor force as percent of	
		Total labor force	All women of working age
1900	5,114	18	20
1910	7,889	21	25
1920	8,430	20	23
1930	10,679	22	24
1940	12,845	24	25
1945	19,270	30	36
1950	18,412	29	34
1955	20,584	30	36
1960	23,272	32	38
1965	26,232	34	39
1970	31,560	37	43
1972	33,320	37	44
1975*	36,000	40	46

Source: "The Economic Role of Women," reprinted from Economic Report of the President, 1973. Washington: Women's Bureau, Employment Standards Administration, Department of Labor, 1973, p. 91.

*U. S. Department of Labor, Bureau of Labor Statistics, Monthly Labor Review (November 1975), p. 2.

$7,000 annually.[3] More than one-third of the poverty level households have women as their sole heads,[4] and in 1973, about one-half of the family incomes of $15,000 and over included two income sources.[5] Thus, for many families, the combined incomes of husband and wife are necessary to maintain a middle-class standard of living, and for many others, a woman's income provides the sole means of support.

Adult women are now working more frequently and for longer periods than they themselves would have expected. A longitudinal study conducted between 1968 and 1970 by the Center for Human Resource Research, The Ohio State University, found that about two-fifths of the 14 to 24 year old women surveyed had altered their career plans for age 35 during those years. They moved overwhelmingly in the direction of entry into the labor force in addition to or instead of the role of homemaker. The revised plans expressed by the fourteen to twenty-four year olds (Table 1-2) are consistent with current labor force participation rates of women aged thirty-five to forty-four--61 percent for black women and 51 percent for white women.

TABLE 1-2

Proportion of Women Age 14 to 24 Planning to Work at Age 35[6]

Race	1968 %	1970 %
Black	47	59
White	27	42

While many women work of necessity, studies also indicate that the majority of women workers would continue to work even if they could live comfortably without their earnings.[7] This preference can be attributed in part to several factors, including a high need for achievement accompanied by a desire for upward social mobility and a "desire for a sense of competence."[8]

Other factors which also affect the probability of women's working may be the declining birth rate;[9] a shift in the population from rural to urban areas where jobs are more accessible; and the shift in nonfarm employment from the goods to the services sector that occurred following World War II, resulting in an expansion of professional and clerical employment. (The professional, clerical and service occupations now account for two-thirds of all women employed.)[10] The latter factors may be related to the higher educational attainment of women in the last ten years. In 1967, the median number of school years completed by females 25 years of age and older was 10.9 years; in 1970 the figure rose to 12.1 years--the same as for males. This relationship between educational levels and employment may occur "not merely because education facilitates employment but also because education is a manifestation of a stimulation of the achievement motivation."[11]

Although the role of the women's movement as a catalyst for these changes is difficult to assess, the existence and growth of the movement during the 1960s served to challenge the notion that economic necessity is the only justification for women to work, and to establish the right of women to work in occupations traditionally restricted to men. The women's movement has also defined and defended rights which can be attained through the courts and has questioned the validity of claims by occupational gatekeepers (such as educational institutions or trade unions) that women are not presently working in certain positions because they lack the aptitude or qualifications or do not want the responsibility.[12]

The women's movement, whether a catalyst in this area or not, has supported women who choose to pursue nontraditional life styles. Even so, the women's movement and legislative and judicial actions that affect women have not yet had widespread effect in changing patterns of employment opportunity, particularly in traditionally male-dominated fields. Ehrlich (1974) pointed out:

> Anyone who thinks that the Women's Movement has changed this situation substantially is deluded by the few sporadic cases that won publicity. Ten years after the rebirth of the Women's Movement,...even within the same job categories, women earn less than men [see Tables 1-3 and 1-4]. Occupational segregation is greater for women now than at the turn of the century. In fact, 68 percent of one sex would have to change jobs to equalize the distribution of the sexes in occupations. This is a major reason for the wage differentials between males and females. Women hold the majority of the low status, low-paying jobs. Vocations such as secretaries, clerical workers, household workers, telephone operators, stenographers, practical nurses, typists, sewers and stitchers are filled 90 percent or more by women.[13]

U.S. Department of Labor statistics confirm Ehrlich's contentions. These figures indicate that a female college graduate will probably earn less money than a male high school graduate, and a female high school graduate will not earn as much as a male with less than eight years of school, despite the passage of equal opportunity legislation. This earnings differential is largely due to the different types of occupations men and women tend to hold.

In fact, in 1971, nearly one-fifth of employed women with four years of college were working as service workers (including private household), operatives, sales workers, or clerical workers, as were some two-thirds of those who had completed one to three years of college.[14] The data for February 1976 continue to show 65 percent of working women participating in three major occupational categories--clerical workers, operatives, and service workers (see Table 1-4).

Some progress in the elimination of occupational stereotyping is occurring, but changes are gradual. Laws and regulations have helped to curb overt discrimination, but subtler forms persist. The schools can help to rememdy this situation (see the Executive Summary). Guttentag reports in a recent (1975) study of sex stereotyping that "...less sexist definitions of male and female family socioemotional roles could have an ameliorative effect on the stresses which many women now experience.... The schools are one socializing instrument which can immediately serve in the primary prevention of sexism."[15]

TABLE 1-3

Median Earnings of Year-Round Full-Time Workers, by Sex, 1970-74 (Persons 14 years of age and over)

Year	Median Earnings Women	Median Earnings Men	Women's Median Earnings as Percent of Men's
1974	$6,972	$11,835	57
1973	6,335	11,186	57
1972	5,903	10,202	58
1971	5,593	9,399	59
1970	5,323	8,966	59

Source: "A Statistical Portrait of Women in the U.S.," U.S. Department of Commerce, Bureau of the Census. (Current Population Reports: Special Studies: Series P-23, No. 58, Washington, D.C., 1976), p. 48.

Legislative Initiatives

The Vocational Education Act

The Vocational Education Act of 1963 was amended in 1968 to extend vocational education to wider segments of the population. It authorizes grants for innovative programs to states, nonprofit agencies, or other institutions; provides stipends for training of vocational personnel; and supports training for new kinds of occupations and improved vocational counseling and guidance for young people.

According to the data of the U.S. Office of Education (1971-1972),* 73.4 percent of all women enrolled in vocational training programs were in either consumer and homemaking fields (45.4 percent) or office occupations (28.0 percent). In contrast, 58.4 percent of the male students were enrolled in technical, trade and industrial, or agricultural programs.[16]

While some advances have been made in widening occupational opportunities for young women, especially by the Federal Government,

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*1972 was the last year the Office of Education collected enrollment data by sex. It will do so again beginning July 1976, but according to the Federal Education Project's September 1976 newsletter, only for the largest schools in each state (about 10 percent of all schools offering vocational programs).

TABLE 1-4

Occupational Distribution of Employed Persons by Education, Sex, and Income, 1970

	High School				College Graduates		Median Income of Year-Round Full-Time Workers		
	1-3 Years		4-Years						
	Percent Men	Percent Women	Percent Men	Percent Women	Percent Men	Percent Women	Men	Women	Women's Earnings as Percent of Men's
Professional, technical and kindred workers	2.8	3.6	7.6	7.1	58.9	77.4	$11,806	$7,878	66.7
Managers and proprietors	6.9	2.9	11.4	3.8	20.1	4.8	12,117	6,834	56.4
Salesworkers	5.6	10.2	7.5	8.1	8.6	2.3	9,750	4,188	42.8
Clerical and kindred workers	6.8	25.3	10.0	50.4	4.9	12.1	8,617	5,551	64.4
Craftsmen	25.6	2.4	26.4	1.8	3.3	.4	9,254	5,089	55.0
Operatives	27.3	22.5	20.6	11.4	1.4	.6	7,623	4,510	59.2
Nonfarm laborers	9.9	1.6	5.3	.8	.5	.1	6,563	4,291	65.4
Farm laborers and foremen	1.9	.6	.9	.3	.2	.1	3,519	-----	
Farmers and farm managers	2.2	.2	2.9	.2	.8	.1	1,260	-----	
Service workers excluding private household	10.8	25.4	7.5	14.5	1.4	1.9	6,955	3,953	56.8
Private household service workers	.2	5.2	(1)	1.7	(1)	.3	-----	2,101	

Source: Economic Problems of Women, Hearings before the Joint Economic Committee, Congress of the United States, Ninety-third Congress, First Session, Part I, July 10, 11, and 12, 1973, Washington: U. S. Government Printing Office, 1973, Table 27, p. 102.

women in the 1970s continue to perform a narrow range of traditionally female occupations (see Table 1-5). It is interesting to note that the proportion of women in professional and technical jobs has declined sharply over the past thirty-five years--from 45 percent in 1940 to 37 percent in 1969, and to 16 percent in 1976--despite the fact that the proportion of women who work rose from 29 to 46 percent over the same period of time.[17] The U.S. Bureau of the Census lists 250 distinct occupations, but half of all women workers are employed in only twenty-one of them. (In fact, one-fourth of all working women are employed in only five occupations: secretary/stenographer, household worker, bookkeeper, elementary school teacher, and waitress).[18] The U.S. Office of Education recognizes that while an additional 200,000 technicians of all kinds are needed each year, less than half of this number are being graduated from formal training programs.[19]

The problem of the expansion of training and employment opportunities to include more women is certainly not new. Proposed solutions were suggested over fifty years ago, but no legislative action was taken at that time. A survey in 1921 by Bertha M. Nienburg of the Women's Bureau of the U.S. Department of Labor discussed the training opportunities which existed for girls at the secondary school level. She observed then the same conditions which are prevalent today--most programs were confined to general subjects, home economics, and commercial arts. She advocated the admission of girls to male-dominated courses and encouraged girls to enter training courses in machine shop practice, tool and die making, mechanical drafting, metallurgy, automobile mechanics, sheet-metal drafting, and electrical instrument making.[20] According to the findings of this study, however, over fifty years later, only a handful of girls in secondary schools across the country are enrolled in hard core male vocational programs.

Title IX of the Education Amendments of 1972

In recognition of the crucial role that schools play in the socialization of individuals, which includes the formation of their ideas about options open to them in the world of work and preparation for their chosen careers, Title IX of the 1972 Education Amendments provides that:

> no person in the United States shall, on the basis of sex, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance.[21]

The major provisions of this title, as they relate to vocational education, are summarized below.

Admissions and Recruitment. Under Title IX, with regard to admissions, coverage extends to "institutions of vocational education" as well as to professional schools and schools of higher education, but public elementary schools and secondary schools (with the exception of vocational schools) are exempt from this aspect of the Act. However, even those institutions whose admissions policies are exempt from coverage must treat students equally once both sexes are admitted.

TABLE 1-5

Women Sixteen Years of Age and Over in the Labor Force
February 1976-75

	February 1976		February 1975	
	All women	Women of minority races*	All women	Women of minority races*
Occupations of Employed Women				
Number (in thousands)	34,213	4,245	32,756	3,996
Percent	100.0	100.0	100.0	100.0
Professional and technical workers	16.1	14.8	15.8	12.4
Managers and administrators (except farm)	5.4	3.2	4.9	2.7
Sales workers	6.4	2.8	6.8	2.7
Clerical workers	35.8	25.1	36.0	26.5
Craft and kindred workers	1.6	1.2	1.4	1.6
Operatives, except transport	11.3	15.0	10.9	13.6
Transport equipment operatives	.6	.4	.6	.6
Nonfarm laborers	1.0	1.4	1.0	1.4
Private household workers	3.0	9.2	3.6	11.3
Service workers (except private household)	17.9	26.5	18.1	27.0
Farmers and farm managers	.2	--	.3	--
Farm laborers and supervisors	.5	.3	.7	.5
Unemployment Rates (not seasonally adjusted)				
Total 16 years and over	9.1	14.2	9.5	13.6
16 to 19 years	19.1	34.5	19.0	40.2
20 years and over	8.0	12.5	8.4	11.2
Percent of unemployed seeking part-time work	24.5	19.7	23.0	20.0
Full-Time/Part-Time Work (nonagriculture)				
Percent on full-time schedules	70.1	75.8	69.8	72.8
Percent on part-time schedules	29.9	24.2	30.2	27.2

*Includes all races other than white; Spanish-speaking persons are included in the white population.

Source: Data distributed by Women's Bureau, U.S. Department of Labor, March 1976.

The regulations under Title IX prohibit sex discrimination in recruitment and admissions policies, including "The separate ranking of applicants, application of sex-based quotas, administration of sex-biased tests or selection criteria, and granting of preference to applicants based on their attendance at particular institutions, if the preference results in sex discrimination."

Application of rules concerning marital or parental status in a manner which discriminates in admissions on the basis of sex is specifically prohibited. The regulation states that disabilities related to pregnancy and related conditions must be treated in the same manner and under the same policies as any other temporary disability or physical condition.[22] In addition, the use of tests which are shown to have a disproportionately adverse effect on members of one sex must be shown to be valid indicators of performance before they are used. Furthermore, they may be used only if alternative tests or criteria which do not have a disproportionately adverse effect are shown to be unavailable.[23]

Treatment. All schools must treat students without discrimination on the basis of sex. Specifically, the regulation covers the following areas:

1. Access to and participation in course offerings and extracurricular activities;

2. Eligibility for and receipt or enjoyment of benefits, services, and financial aid;

3. Use of facilities (comparability and availability) and policies or practices concerning occupancy.[24]

Curricular Materials. The final regulation does not confront the problem of sex-biased textbooks. In fact, the final regulation explicitly states that "nothing in the regulation shall be interpreted as requiring or prohibiting or abridging in any way the use of particular textbooks or curricular materials." The wording of the final regulation was adopted because the Department of Health, Education and Welfare (HEW) decided that the imposition of restrictions in curricular materials "would inevitably limit communication and thrust the Department into the role of federal censor."[25]

HEW has indicated that it will increase its efforts to provide research, assistance, and guidance to local educational agencies in the area of curricular materials. Specific policies and procedures for eliminating bias in curricular materials, however, will be left to local authorities to devise.[26] The findings of the present study indicate that curricular and guidance materials, including tests and vocational booklets (see Chapters 2 and 6), often present sex-stereotyped information, and that the number of unbiased texts and other educational materials available is limited.

Enforcement. HEW's enforcement record under Title IX has caused various groups to charge that HEW has been remiss in several respects: (1) its failure to issue a final regulation until three years after enactment of Title IX; (2) its failure to enforce even the clearcut, unambiguous provisions during the interim; (3) its failure to provide adequate notice to school administrators of Title IX requirements, and (4) its failure to consider Title IX a high priority concern.[27]

HEW has also failed to give institutions covered by Title IX adequate notice of their rights and responsibilities.[28] Not until July 1975 did the Department require institutions to submit assurances that they will comply with Title IX. The requirement of an assurance of compliance would have ensured at a minimum that all institutions were aware that they were covered by the legislation.

It is said that HEW has also been deficient in collecting the basic survey data that it needs to pinpoint compliance problems in schools that offer vocational programs. The Federal Education Project's Newsletter of September 1976 states that "the 1976-77 school year has begun, but OCR [Office for Civil Rights, the title IX enforcement arm of HEW] still has not finalized its planning, much less mailed out the survey forms." A survey conducted in 1974 of the nation's "specialized" vocational schools revealed that almost all responding schools have potential sex discrimination problems.[29]

Enforcement of Title IX will continue to be sought primarily through voluntary compliance. If attempts to secure voluntary compliance fail, enforcement action may occur by: (1) administrative proceedings to terminate federal financial assistance, or (2) other legal means, including referral to the Justice Department for initiation of court proceedings. The second means of enforcement does not jeopardize the recipient's federal funds.[30]

The final regulation requires recipient institutions to initiate programs of self-evaluation to determine the extent of sex discrimination within their schools by July 1976. Schools are also required to take whatever steps are necessary to end this discrimination, a record of which is to be kept on file for three years. The intent of the self-evaluations is to reduce the existing sex discrimination without resort to federal intervention by ensuring that responsible school officials are aware of the extent of discrimination based on sex in their schools. The procedure will enable HEW to take into account those actions already initiated by the recipient institution as a result of the self-evaluation when determining the necessary corrective measures.[31]

The regulation also requires the establishment of grievance procedures for students and employees to facilitate compliance and achieve prompt correction of complaints. The recipient institution is allowed considerable flexibility in choosing the type of grievance procedure to be established.[32]

Affirmative action efforts are permitted but not required to overcome the effects of conditions which have resulted in limited participation in all or a part of the recipient's education program. Affirmative actions are required only when the limited participation of one or the other sex was due to discriminatory policies recently in effect at the school.[33]

The affirmative action concept, when applied to employers, requires that they do more than merely refrain from discriminatory practices. The employer must actively attempt to eliminate employment barriers for women. Although schools are not required to promote equality in this way, schools can take many steps, some of them quite simple, to help women to enter nontraditional vocations. Some of these steps are suggested in the Executive Summary of this report.

The Education Amendments of 1976

To date, the government's enforcement priorities have not emphasized the elimination of discrimination based on sex. The passage of the Education Amendments of 1976 (S.2657) in October of 1976 may help to remedy this situation, since the new law incorporates incentive and accountability provisions aimed at eliminating sex stereotyping in vocational education. The new bill provides at least $50,000 per year to each state that establishes (within the state board of education or any appropriate agency) an office for the elimination of sex stereotyping in educational programs; funds for special project grants to assist in overcoming sex bias; and additional funds that may be used to train counselors in the "changing work patterns of women and ways of overcoming sex stereotyping."[34]

Title II of the Education Amendments of 1976 is designed to rectify some of the shortcomings in existing legislation by focusing attention on the elimination of sex stereotyping in vocational education as a national objective. The requirement that each state must submit detailed plans for eliminating sex stereotyping, followed by annual assessments of the states' success in achieving their goals, will provide local, state, and federal officials with information about the extent of sex stereotyping and the relative success of various techniques used to eliminate it. Feedback to state and local officials from the federal government will include suggestions about how programs can be improved.

However, legislation that requires accountability at the state and local levels can provide only an external impetuss--it cannot guarantee the elimination of sex stereotyping. The key to success rests in locally effective programs.

Summary

The time lag between enactment of legislation barring sex discrimination and the emergence of truly meaningful and widespread social change seems to be a long one, but societal attitudes are slow to adjust to unaccustomed ideas and practices which promote sexual equality. As Lyle and Ross have noted in Women in Industry "The most important changes which will bring about equal employment opportunities lie beyond the realm of federal enforcement. They are changes in social attitudes about women and work. We have to rethink our ideas about what is proper women's work and the commitment of women to their jobs. We must reevaluate the way in which we educate young women and the occupations we encourage them to enter."[35]

Because nine out of ten high school women will work outside the home for some part of their lives, because not enough traditionally female jobs will exist to accommodate the women who must work in the future, and because shortages of skilled labor which could be performed by women exist right now, encouraging women to enter traditionally male vocations makes good economic, political, and social sense. Perhaps better than any other single agency, schools can effect those changes which will contribute to the expansion of opportunity for women. They can provide increased access to a range of educational and training programs which will lead women to careers in both traditional and nontraditional occupations.

FOOTNOTES

[1] *Occupational Handbook in Brief, 1974-75 Edition*, U.S. Department of Labor, Bureau of Labor Statistics. Reprinted from the *Occupational Outlook Quarterly*, 18: 2 (Summer 1974).

[2] Howard Hayghe, "Marital and Family Characteristics of the Labor Force in March 1973," *Monthly Labor Review* (April 1974), pp. 24-25.

[3] "Why Women Work," (Washington: U.S. Department of Labor, Women's Bureau, May 1974).

[4] U.S. Department of Labor, *Fact Sheet on the American Family in Poverty*, Employment Standards Administration, Women's Bureau (from U.S. Department of Commerce, Bureau of the Census, Current Population Reports P-60, Nos. 76,77).

[5] Cynthia Epstein, *Reflections on the Women's Movement: An Assessment of Change and Its Limits* (New York: Institute of Life Insurance, August 1975), p. 6.

[6] *Years for Decision*, Vol. 3 (Columbus: The Ohio State University, Center for Human Resource Research, for the U.S. Department of Labor, Manpower Administration, December 1973), p. 15.

[7] *Dual Careers*, Vol. 1, (Washington: U.S. Department of Labor, Manpower Administration, 1970) Manpower Research Monograph No. 21, pp. 207-209.

[8] Lois W. Hoffman, "The Decision to Work," *The Employed Mother in America,* F. I. Nye and Lois W. Hoffman (eds.) (Chicago: Rand McNally, 1963).

[9] *Manpower Report of the President, 1975* (Washington, D.C.: Government Printing Office, 1975), p. 64.

[10] T. Aldrich Finegan, "Participation of Married Women in the Labor Force," in Cynthia B. Lloyd, (ed.), *Sex Discrimination and the Division of Labor* (New York: Columbia University Press, 1975), p. 28.

[11] Hoffman.

[12] Epstein, p. 7.

[13] Howard J. Ehrlich, *Selected Differences in the Life Chances of Men and Women in the United States* (Baltimore: Research Group One, Report 13). The population materials presented are all taken from reports of the U.S. Bureau of the Census, March 1974.

[14] U.S. Department of Labor, *Underutilization of Women Workers* (Women's Bureau of Workplace Standards Administration, 1971), p. 17.

[15] Marcia Guttentag, Paper presented at The Vermont Conference on the Primary Prevention of Psychopathology, Burlington, University of Vermont, (summer 1975). Cited in Robert J. Trotter, "Sexism Is Depressing, "*Science News*, 108: 11 (September 13, 1975), p. 174.

[16] Shirley McCune, "Vocational Education: A Dual System," *Inequality in Education*, No. 16 (March 1974), p. 30.

[17] Mary L. Ellis, "Women in Technical Education," speech delivered at The National Technical Education Clinic, Oklahoma City, March 26, 1971, (ED 072 283).

[18] Janice N. Hedges, "Women Workers and Manpower Demands in the 1970's," *Monthly Labor Review* (June 1970), p. 19.

[19] Elizabeth Duncan Koontz, "Women and Jobs in a Changing World," *American Vocational Journal*, 45 (December 1970), p. 14.

[20] Bertha M. Nienburg, "Industrial Opportunities for Women and Girls," The Women's Bureau, U.S. Department of Labor, Bulletin No. 13, (Washington, D.C.: Government Printing Office, 1921) p. 36.

[21] House Committee on Education and Labor and the Senate Committee on Labor and Public Welfare, Title IX--Prohibition of Sex Discrimination, P. L. 92-318, A Compilation of Federal Education Laws, As Amended through December 31, 1974 (Washington, D.C.: GPO, February 1975), p. 43.

[22] Statement by Caspar W. Weinberger, *HEW News* (June 3, 1975), p. 3.

[23] U.S. Department of Health, Education and Welfare/Office of the Secretary, Nondiscrimination on Basis of Sex, Federal Register, Part II, Vol. 40, No. 108 (June 4, 1975), Part II, p. 24, 30, citing section 86.21 (b) (2).

[24] Final Title IX Regulation Implementing Education Admendments of 1972, HEW News (June 3, 1975), p. 5.

[25] HEW, Nondiscrimination on Basis of Sex in Education Programs and Activities Receiving or Benefiting from Federal Financial Assistance, Part 86.42, Textbooks and Curricular Materials, Federal Register, Vol. 40, No. 108 (June 4, 1975), Part II.

[26] HEW Fact Sheet, p. 8.

[27] Testimony at the Sex Discrimination and Sex Stereotyping in Vocational Education Hearings in March and April, 1975. See, for example, the testimony of Holly Knox, director, project on Equal Education Rights; Celia Steele, project on Equal Education Rights; Lois Shiffer, Center for Law and Social Policy; and Marcia Greenberger, Center for Law and Social Policy. Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education, Committee on Education and Labor, House of Representatives. Ninety-fourth Congress, First Session.

[28] Ibid., p. 173.

[29] Ibid., p. 174, p. 205, and The Federal Education Project Newsletter, September 1976.

[30] HEW Fact Sheet, p. 11.

[31] Nondiscrimination on Basis of Sex, Federal Register, op. cit., p. 24138, Section 86.3 (c and d), p. 24129.

[32] Ibid., Section 86.8 (b).

[33] HEW Fact Sheet, pp. 4-5.

[34] House of Representatives Report No. 94-1701 (September 1976).

[35] Jerolyn R. Lyle and Jane L. Ross, Women in Industry: Employment Patterns of Women in Corporate America, Lexington Books (Lexington, Massachusetts: D. C. Heath and Company, 1973), p. 98.

CHAPTER 2

SOCIALIZATION IN THE WORLD OF WORK, THE HOME, AND THE SCHOOLS

Introduction

Vocational education has a unique opportunity to contribute to the goal of career selection on the basis of interest and aptitude rather than on sex-based probabilities. It can do so by offering equal access to both females and males to all vocational programs, thus maximizing the probability of success in the world of work for all candidates. However, the data presently available indicate that many current practices in vocational education reflect the prevalent sex stereotypes.

Educational institutions tend to share and perpetuate the dominant norms, values, and role expectations of the total culture. Students and school personnel are the products of a variety of socializing influences. As a result, change in educational institutions is a slow process, because everyone does not agree on the need for change or how it should be effected. When the proposed change threatens long-held beliefs about appropriate behavior for males and females, the process may be even slower. Although legislative and judicial mandates prescribe elimination of sex discrimination in education and employment,cultural practices and attitudes continue to exert strong pressures that result in sex-stereotyped work roles. Opportunities in the world of work, socialization in the home, and sex stereotyping in schools and curricular materials are three major cultural influences on the vocational choices of students.

Women and the World of Work

One of the realities facing any female student who must choose a vocation is the situation that currently exists in the world of work, discussed in detail in the previous chapter. Cultural role models for female students tend to reflect limited occupational choice and achievement. Many jobs have been limited to males because of the costs of on-the-job training. Employers often have not been willing to risk the time and expense on training a woman when they believed she would not stay on the job or would have a higher rate of absenteeism than men. Many employers' attitudes were formed when most women workers were young and single and likely to leave the labor force upon marriage. These attitudes prevail even though the data suggest that women's career patterns have changed. Jaffe and Ridley found that the majority of women who work do not move in and out of the labor force.[1]

Even when women are hired, they are frequently denied the incentives which result in men's staying on the job, perhaps due partly to the widespread belief that it is best not to have women as supervisors, particularly of male workers. High occupational aspirations on the part of married women are particularly suspect, because they are seen as interfering with family responsibilities.

Young girls continue to be influenced by occupational segregation which was established in the past because women worked for low wages, were perceived as having the alternative of homemaking in times of contracting labor demand, and performed jobs for which they had been trained through the socialization process.[2] Although such occupational segregation was never valid, many of the practices which gave rise to it are now illegal. Young girls must be educated to the realities of the labor market and to the opportunities which are available to them under the law.

Socialization in the Home

With little or no formal preparation for the role, parents have the major responsibility for the initial socialization of children. This process of social shaping is of great importance in children's acquisition of sex-typical behavior, self-esteem, vocational aspiration, and vocational choice. While extensive research has been conducted to determine the differential effects of this socialization process on male and female children, most studies have been done within sex using traditional definitions of feminine and masculine behavior. This body of normative research forms the base of our current understanding of the outcome of parental influence. Another factor to be borne in mind is that past research has emphasized interactions of mother and child rather than the effects of both parents.

Research on differential socialization of males and females includes total parent-child interaction, verbal interaction, parental warmth, granting of autonomy, reaction to the child's aggression, negative sanctions, pressure to achieve, and parental response to children's sexuality. Regardless of the focus of the research, in generalizing about differential socialization, Maccoby and Jacklin note:

> On the whole, these studies indicate that parents are trying to socialize children of both sexes toward the same major goals, but they believe they are starting from different points, with each sex having a different set of "natural" liabilities and assets.[3]

Many experts think that it is this belief in different inherent qualities, rather than any such qualities themselves, that results in different outcomes for females and males. Kagan and Moss have noted some behavioral differences in male and female children as early as six months. By three years of age, cultural norms regarding sex-specific behavior have been well learned and are reflected in both play and task selection.[4]

This difference in behavior is not surprising in view of the research conducted by Rubin, Provenzano, and Luria, who report on parents' descriptions of their newborn children. Even though there were no significant differences in the infants' birth weights, birth lengths or Apgar scores (a rating scale used routinely for newborns), female children were more likely to be described as "little," "beautiful," and "resembles her mother." Fathers made more extreme and stereotyped rating judgments of newborns than did mothers.[5]

In summarizing what research has shown about sex differences, Maccoby and Jacklin report the following sex differences to be fairly well established:

1. Females have greater verbal ability than males.
2. Males excel in visual-spatial ability.
3. Males excel in mathematical ability.
4. Males are more agressive.

They cite the following beliefs as unfounded:

1. Females are more "social" than males.
2. Females are more "suggestible" than males.
3. Females have lower self-esteem.
4. Females are better at rote learning and simple repetitive tasks, males at tasks that require higher level cognitive processing and the inhibition of previously learned responses.
5. Males are more "analytic."
6. Females are affected by heredity, males by environment.
7. Females lack achievement motivation.
8. Females are auditory, males visual.[6]

Regardless of the research evidence, parents continue to operate upon what they believe (consciously or unconsciously), and cultural sex stereotypes foster and perpetuate the unfounded beliefs. The socialization process proceeds a generation behind time, because most parents react to a child's behavior in terms of their present feelings with little thought to the ultimate consequence that behavior and their reaction to it may have for the future adult role of their child.

One expression of sex-role stereotyping in the family occurs in the assignment of household tasks to various family members. In a study of task responsibilities of 806 school-age children, Lynch found that traditional patterns prevail, with girls doing "girls' work" and boys doing "boys' work."[7] As if in preparation for future life situations (when they are likely to work both inside and outside the home), the girls' participation was more intense. As early as nine to eleven years of age, female children did eight minutes of work for every five minutes contributed by male children. At ages twelve to seventeen, females worked at household tasks at about double the rate of males.

Another subtle means of teaching "appropriate" sex-role behaviors is the differential selection of toys provided to male and female children. Because children's play is their work, toys are their tools and the means whereby they learn future roles.[8] Male children have traditionally been the recipients of action toys such as trucks, guns, building kits, and sports equipment; girls have been given dolls, doll houses and dishes for playing "mother."

Although based on a small sample, the work of Will, Self, and Datan indicates that mothers respond only to external clothing cues when the actual sex of the child is not known. They presented dolls and smiled more at the infant they believed to be female. Similarly, mothers presented trains to the child they believed to be male. Even though mothers behaved differently on the basis of what they believed a particular child's sex to be, they all stated that there was no difference in the way six-month infants ought to act.[9]

The findings of the present study tend to support those of the earlier studies cited here with regard to differentiation of tasks performed by females and males and toys presented to children by their parents. Parents of female students in nontraditional vocational programs reported that they tried to influence their daughters' career choices by giving appropriate toys, and female students and their parents reported that female children spend more time on household tasks than males.

Parents exert influence on their children's vocational aspirations and their selection of an area of work. Investigations of parental influence have focused on father-son and mother-daughter relationships. Women's career orientation seems to be linked with their mothers' employment histories,[10] but it has been noted that relatively little is known about career decision patterns of women at the present time.[11] One of the major difficulties in studying women's career development is the central position that marriage occupies in their future plans. It does seem that if a woman works at an early age, she is likely to be working at older ages. In fact, according to Jaffe and Ridley, if present trends continue, 75 percent of women between the ages of 45 and 60 will be in the work force in the future.

In the present study, the role that parents play in their children's career choice is difficult to determine with accuracy, but several points can be made. That parents influence their children's attitudes is clear: students and parents tend to agree in their assessments of the individual student's characteristics and about appropriate roles for women. Parents of nontraditional female students were more likely to support equal occupational opportunities than others. Parents' responses to questionnaire items are explored in greater detail in Chapter 4.

Sex-Stereotyping in Schools

The stated purpose of schools is to educate and equalize opportunity for all citizens. Indications are, however, that student success is primarily dependent upon race, socioeconomic class, and sex.[12]

It has been noted that one of the most interesting phenomena about sexism in public education is the openness with which it is practiced.[13] Although Title IX of the Education Amendments of 1972 mandates that sex discrimination be eliminated in federally assisted education programs, teachers' interactions with male and female students continue to be biased in many cases.

Teachers

Sex-stereotyped behavior on the part of teachers, particularly toward elementary school students, is reported by Levy as follows:

> For girls, the schools' expectations and traditional sex-roles are congruent and provide a strong double-barreled message reinforcing girls' obedience, docility, and dependence. For boys, the school's expectations often conflict with traditional sex-role expectations, resulting in a confusing double message: Be aggressive, active, achieving, and independent (be masculine), but also be passive, quiet, and conforming (be a good pupil).[14]

The preponderance of women as teachers (particularly in nursery and elementary schools) deprives male students of sex-specific role models; but most traditionally male vocational courses are taught by men, which deprives female students of sex-specific role models. Male students, moreover, receive more of the teacher's active attention than do females. This attention takes the form of more one-to-one instruction, more expressions of approval and disapproval, and more active listening on the part of the teacher.[15]

Teachers, like employers, may expect females or males to perform specific tasks because of the belief that the traits needed are considered, though not necessarily proven to be, attributes of one sex. The Johnson O'Connor Research Foundation Human Engineering Laboratory reports that in testing on twenty-two aptitude and knowledge areas, no sex difference exists in fourteen areas; women excel in six; and men excel in two.[16] Often, however, as technology makes a previously required sex-linked trait obsolete (and even when the job required no particular "male" or "female" qualitites to begin with), jobs or training for jobs are not necessarily open to members of both sexes.

Teachers in the present study's sample do not actively discriminate against females in their classes, but they do perceive differences between male and female students, some of which are sex-stereotyped. There is no evidence to suggest that teachers actively encourage nontraditional enrollments (see Chapter 7).

Curricular Materials

Teachers' behavior based on sex stereotypes works to the disadvantage of both male and female students; however, female students are most disadvantaged by sex-stereotyped classroom or counseling materials. Women on Words and Images, a task force of the National Organization for Women (NOW), reports that both the number of females portrayed and the manner in which they are portrayed in elementary school readers are detrimental to females.[17] (It must be borne in mind, however, that defining and measuring sex-role stereotyping presents methodological problems due to the subjective nature of ratings.)[18]

While the impetus for concern about sex stereotyping in educational materials arose as a result of the women's movement, the subsequent concern expressed by teachers' associations and others has influenced major publishers. The tone of more recent materials indicates that deliberate efforts are being made and will continue to be made to eliminate sex stereotyping in curricular materials (see Chapter 6, Bibliography). Despite this trend, many materials now in use are quite inadequate.

Educational materials to which students are exposed reinforce the negative aspects of sex-role stereotypes. Female characters in classroom materials are more likely to be portrayed as passive, incompetent, fearful, and likely to retreat to the home for support in demanding situations. Females are also presented as capitalizing on their appearance rather than on their intelligence. Most women in educational materials are presented as housewives or professionals, roles which do not reflect the range of roles of all modern women, and which are not varied enough to serve as positive models for the future. Male characters, in contrast, are adventurous, brave, resourceful, industrious, and generally in charge of themselves and situations. The males show neither weaknesses nor emotion, nor do they care about how they look.[19] The role models presented by such materials for either sex are decidedly incomplete.

At least two studies have examined the degree of sex bias in career guidance materials. To the extent that many such materials categorize jobs as "male" or "female," use one-sex illustrations, and present sex-based norms, they serve to reinforce existing sex role stereotypes in the world of work.[20]

Guidance materials vary widely in their appropriateness for either sex. Considerable career guidance material depicts blatantly stereotyped sex-roles in careers, with only women shown as nurses or secretaries, only men as welders or farmers. Although counselors in our sample did not use separate vocational interest test forms in their work, some of them did use separate scoring keys for males and females. One-third of the counselors expressed dissatisfaction with the vocational guidance materials currently available (see Chapter 6).

Counselors

Research evidence to date indicates that many counselors are uninformed (or misinformed) about the work roles of women. It is difficult to determine whether counselors are simply misinformed or if they harbor negative attitudes toward women's labor force participation.[21] Although as a group counselors are dedicated to the principle of serving each client as an individual, the work of several researchers indicates that counselors react negatively to "deviate," nontraditional career goals, especially when the client is female. The counselors' own life experiences--sex, marital status, community setting--were clearly related to the degree to which they accepted the emerging work roles of women. Some research has also disclosed that male counselors are more sex-biased than female counselors, although evidence on this point is conflicting.[22]

The present study found that, like teachers, counselors do not overtly discourage nontraditional enrollments, but they do not encourage them, either--and this in schools discovered after a nationwide search for those with nontraditional enrollments. (See Chapter 6 for a more detailed discussion of counselors' roles.)

One evidence of the effectiveness of the sex-based socialization process in schools can be found in the proportion of males to females in the teaching and administrative positions in schools themselves, as well as in the higher levels of educational leadership. Figure 1 indicates that although females are well represented in educational degrees conferred, they are minimally represented in leadership positions, particularly those highly visible to students. Estler concludes that this situation results from discrimination.[23] Clarke presents evidence that the percentage of women in such positions is declining. For example, the proportion of female junior high school principals decreased by 9.1 percent between 1950 and 1973.[24] One result of these trends is that female students have fewer models in leadership roles and both female and male students are deprived of the experience of seeing women as supervisors of other adults.

Vocational Education

While there may be a tendency to believe that more male students are enrolled in vocational education programs, between 1970 and 1972* the proportion of females in all vocational programs was 55 percent, primarily in traditional female courses. In secondary level programs, about 66 percent of enrollees were women. The female enrollment in post-secondary programs was 39.9 percent, and females represented about 46 percent of adult education enrollments. Figure 2 illustrates the limited program options selected by women. In discussing this distribution, Steele notes that whether by subtle societal conditioning or by overt

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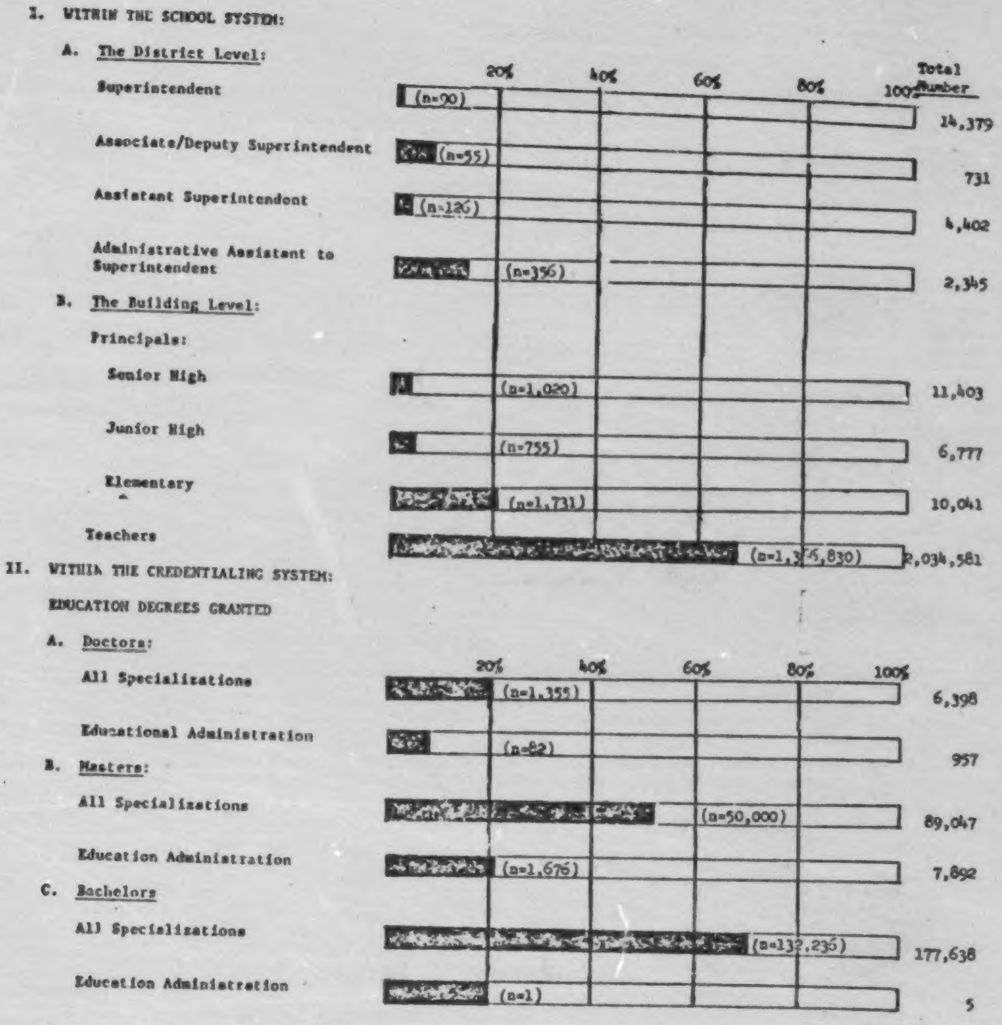
*The most recent data available. HEW will begin to collect such data again in 1976.

FIGURE 1

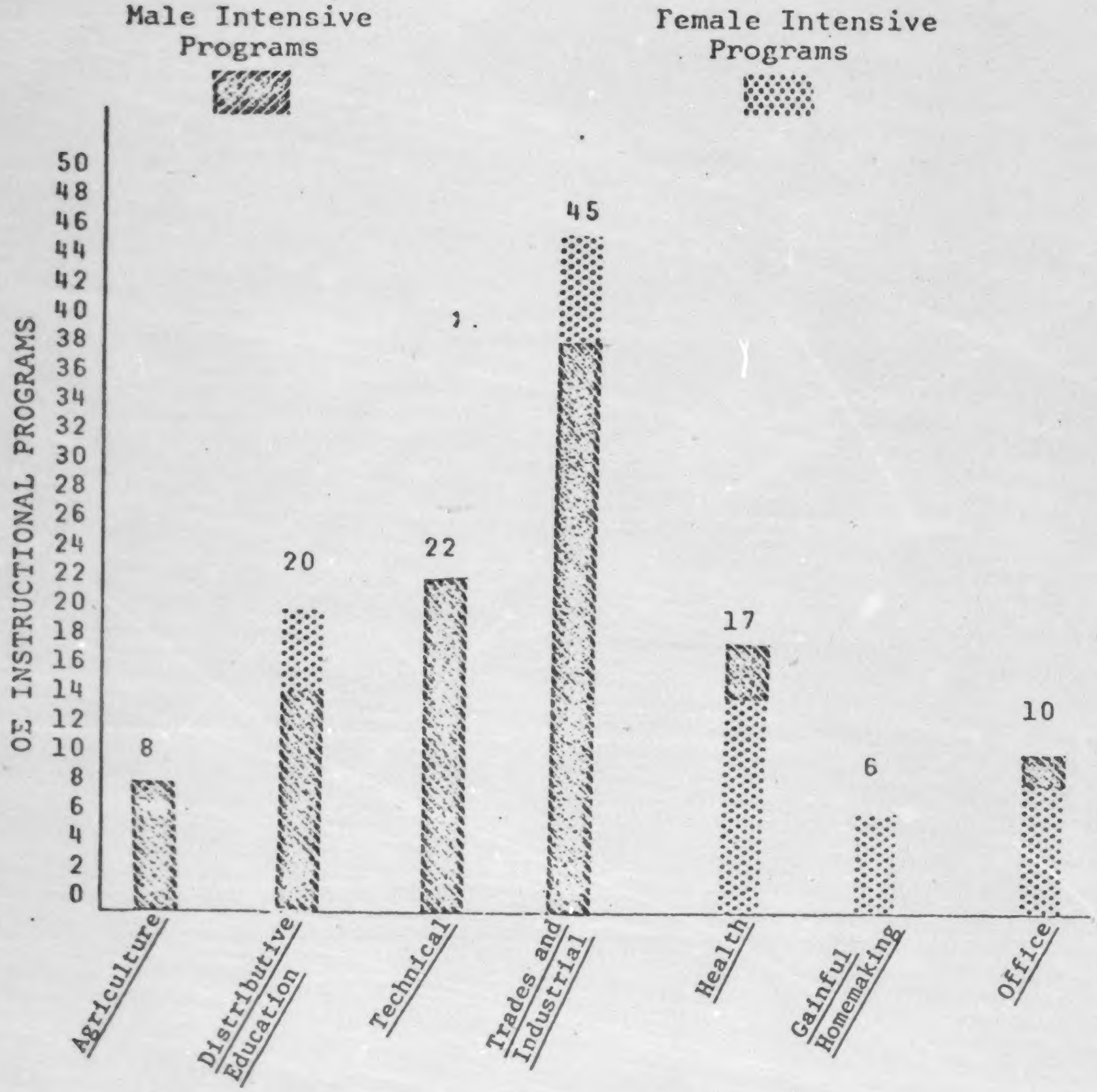
Proportion of Women at Levels of Educational Leadership



Source: National Education Association, 1971, cited in Suzanne E. Estler, "Women as Leaders in Public Education," Signs: Journal of Women in Culture and Society, 1(2) (Winter 1975), p. 365.

FIGURE 2

Wage-Earning Vocational-Technical Programs, 1972
(All Secondary and Postsecondary Programs)



Source: Marilyn Steele, Women in Vocational Education: Project Baseline Supplementary Report, Technical Education Research Centers, Inc., (Washington, D.C., 1974).

discriminatory educational practices, limited educational options for females obviously lead to fewer opportunities in the world of work.[25] As Table 2-1 indicates, almost half (45 percent) of the female enrollment is in Consumer Homemaking and Home Economics programs which are intended to teach wage-earning skills. They are designated "useful" or "gainful" programs, but if this is the case, they would no doubt be useful or gainful to males.

Further, the expenditures per student figures suggest that female students are receiving the short end of the dollar, due to the type of courses in which they are enrolled. For example, the cost per student ranges from $191.32 in Trade and Industrial to $65.22 in Consumer Homemaking.[26] Moreover, student to teacher ratios are less favorable in traditionally female programs (see Table 2-2).

In general, there seems to have been little improvement in the status of female students in vocational education since 1967 when Kaufman, et al., reported:

> When the favorable and unfavorable evidence is added up, vocational education does appear to be doing an adequate job, but it is being restricted by the prevailing stereotypes as to the proper occupations for women. These are the same stereotypes that restrict the vocational self-concepts of young girls. Few jobs are perceived as appropriate, and even these are considered subsidiary to the real female roles of wife and mother.[27]

Sex discrimination in vocational education has aroused considerable concern. Testimony at the hearings on this subject before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor of the U.S. House of Representatives held March 17 and April 21 and 28, 1975, documented the need for change and presented some strategies to effect change, many of which were included in Title II (Vocational Education) of the Education Amendments of 1976.

Why, then, do young women report that they are satisfied with current programs? Trecker suggests three factors: outright exclusion of females from many vocational opportunities open to males, cultural pressures and assumptions, and both circumstance and policy in counseling and administration.[28] Another factor may be the lack of female role models within vocational education. In a survey of secondary vocational teachers (1972), HEW reported the following percentages:

Teachers of agriculture	- 100% male
Teachers of technical; T & I	- 89% male
Teachers of distributive education	- 77% male
Teachers of health occupations	- 89% female
Teachers of home economics	- 98% female
Teachers of office occupations	- 72% female[29]

TABLE 2-1

Distribution of Total Enrollments in Vocational Education and Percentage by Sex and Program, 1972*

	Total Enrollments in Vocational Education	% of Total Enrollment	Female Enrollments	Male Enrollments	Percent Female	Percent Male	Females as % of Total
Agriculture	896,460	7.7	48,153	848,307	5.4	94.6	.4
Distribution	640,423	5.5	290,020	350,403	45.3	54.7	2.5
Health	336,652	2.9	285,071	51,581	84.7	15.3	2.4
Home Economics	3,445,698	29.7	3,157,935	287,763	91.6	8.4	27.2
Gainful	(279,966)	(2.4)	(240,948)	(39,018	(86.1)	(13.9)	(2.0)
Consumer Homemaking	(3,165,732)	(27.3)	(2,916,987)	(248,745)	(92.1)	(7.9)	(25.1)
Office	2,351,878	20.3	1,796,387	555,491	76.4	23.6	15.5
Technical	337,069	2.9	33,006	304,063	9.8	90.2	.3
Trade & Industry	2,397,968	20.7	279,680	2,118,288	11.7	88.3	18.3
Special Programs	1,304,619	11.2	582,715	721,904	44.7	55.3	5.0
Total	11,602,144	100.9	6,422,115	5,180,029	--	--	55.8

*Includes below grade 9 and postsecondary enrollments.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May 1973, p. 1.

TABLE 2-2

Vocational Education Programs Percentage Distribution of Enrollment by Sex, by Total Number of Teachers, by Average Teachers per Student, and by Teachers per Male and Female Enrollments in 1972*

Occupational Areas	Percent Male**	Percent Female**	Total Teachers**	Average Students per Teacher***	Total Teachers per Male Enroll-ments**	Total Teachers per Female Enroll-ments*
Agriculture	94.6	5.4	13,270	49.2	12,553.4	716.6
Distribution	54.7	45.3	13,795	67.5	7,545.9	6,249.1
Health	15.3	84.7	14,552	23.1	2,226.4	12,325.5
Consumer & Homemaking	7.9	92.1	34,820	90.9	2,751.0	32,069.0
Home Economics - Gainful	13.9	86.1	6,727	82.9	935.0	5,792.0
Office	23.6	76.4	52,662	44.6	12,428.3	40,233.7
Technical	90.2	9.8	16,820	20.0	15,171.6	1,648.4
Trades & Industry	88.3	12.2	65,105	36.8	57,487.7	7,617.3
Total	AV. 44.6	AV. 55.4	217,751	AV. 47.8	111,099.4	106,651.6

*Includes unduplicated enrollments, enrollments below grade 9, and postsecondary enrollments.

Source: **Division of Vocational and Technical Education, *Trends in Vocational Education Fiscal Year 1972*, Washington: Office of Education, Department of Health, Education, and Welfare, June 1973, p. 7.

***Division of Vocational and Technical Education, *Summary Data Vocational Education Fiscal Year 1972*, Washington: Office of Education, Department of Health, Education, and Welfare, May 1973, p. 3.

There is not presently any compilation of data about women educators at other levels of vocational education. Kievet notes that anyone concerned with the status of women as professional vocational educators in higher education must rely on observation, deduction, and specific cases which may or may not be generalizable.[30] However, the sex distribution of women in vocational education appears to follow that of the secondary programs. (Title II of the Education Amendments of 1976 authorizes funds for states to gather, analyze, and disseminate data on the status of men and women students and employees beginning in 1977.)[31]

Another area about which very little is known is the attitudes of male vocational educators toward their female colleagues and students. Gillie has said that:

> In many places, the attitude toward professional women in vocational education remains chauvinistic. The myth that certain occupations are male, and others are female.... persists, and is likely to for a long time. Mixed in with all this, and hanging on, are such traditional views as that the male is the chief provider of the family unit while the married woman's chief role is that of mother and housekeeper. Such traditions, considered by some to be societal mechanisms for keeping women out of the occupational mainstream, will die hard--if at all. True equality for professional women in vocational education (or any other profession for that matter) can take place only when the self-concepts of professional males are modified with respect to their relationships with professional women.[32]

Inservice training sessions or workshops on sex-role stereotyping for teachers and counselors could be one way of educating both to the need for broadening the students' range of choice, and might have the further effect of increasing these professionals' respect for one another regardless of sex.

Summary

Even though over half of the students in vocational programs are females, the program selection of female students indicates that the traditional norms and values of home and society about roles for women are being reinforced in educational institutions. Women's effective participation in the work force depends on changing these roles. For females to select traditionally male occupations, for males to select traditionally female occupations, and for each to find subsequent employment in those occupations may require great determination in the face of many deterrents in the total system.

Sex stereotyping appears to be a reality in the home, the schools, and the world of work. While this places constraints on vocational educators, they are in a position to serve as positive influences. As one of the major institutions at the juncture of home and work, schools can develop vocational programs that not only compensate for, but transcend the influences that result in the selection of careers on sex-based probabilities.

FOOTNOTES

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PART II
METHODOLOGY

CHAPTER 3

SAMPLE AND METHODS

Introduction

To meet the objectives of this study it was necessary to identify ten comprehensive high schools or specialized secondary vocational schools in which five or more females were enrolled in a traditional male vocational program;[1] and to establish a) the curricular objectives of these vocational programs, and b) the techniques used to attract students, to provide occupational preparation, and to place graduates in appropriate jobs. The study also sought to determine which, if any, factors in the schools and/or communities in which females have enrolled in traditional male vocational programs appear to contribute to the acceptance of such enrollment, and what kinds of developmental or situational characteristics may differentiate females who select traditional male vocational programs from those who do not.

A search was conducted for programs which met the established criteria. All fifty state departments of education were contacted. After the sample schools were selected, they were visited by a team of vocational educators who investigated the objectives of the selected programs, recruitment methods used by the schools, occupational preparation received by the students, placement of students, and school and community factors which might contribute to acceptance of nontraditional enrollments.

Finally, questionnaires were administered to present and former traditional and nontraditional students in the same programs and to the parents of current students in an effort to identify the characteristics, if any, which distinguish these students from each other. Students were questioned about their general attitudes toward their high school experiences and their attitudes toward the specific programs which were being studied. Former students were asked about their occupational experiences. Parents were asked about their methods of child rearing and their satisfaction with their children's vocational choices. All of the questionnaires addressed educational satisfaction and attitudes toward sex roles.

Identification of Programs

The U.S. Office of Education was contacted in the hope that its personnel could suggest the names of at least ten schools which had successfully enrolled females in traditional male vocational programs. The Office, however, had no knowledge of any such schools, and from 1972 until 1976, it has not required that the states provide enrollment data differentiated on the basis of sex. Thus, the information needed for the selection of the sample was not available at the federal level.

Next, the departments of education in the fifty states and the District of Columbia were contacted by telephone.[2] Calls were placed to the directors of vocational education in each state. In some cases, the director was reached; in others, the call was referred to someone else. A member of the project staff spoke with at least one appropriate official in each state, briefly explained the purpose of the study, and sought state assistance. An explanatory letter providing more details followed the telephone calls.

Each state department of education was asked to provide the names and addresses of any of its secondary schools (vocational or comprehensive) in which five or more females were enrolled in a nontraditional vocational program in the 1973-74 school year.[3] Nontraditional vocational programs for females were defined to include technical programs, most of the Trade and Industrial programs such as carpentry, auto mechanics, welding, and masonry; and agricultural programs such as production agriculture, livestock science, etc.

The criterion of five females is an arbitrary one, but it was selected for several reasons. First, it was necessary to establish a standard which could be applied to all states. In addition, setting an absolute female enrollment rather than asking for a percentage of total enrollment appeared to be a less time-consuming and more realistic request for state officials to fulfill. Finally, it was decided that an enrollment of less than five females in a traditional male program was more likely to represent an effort by a few unusual females to break the sex barrier rather than an encouraging climate fostered by the school.

Only two states and the District of Columbia failed to respond after several follow-up contacts. Three states declined the initial request for this information on the grounds that it was too costly to provide (e.g., necessitating a special computer run) or too difficult to fulfill for other reasons, including failure to collect enrollment data by sex. Three states stated categorically at the time of the initial telephone contact that no schools in their states would meet the study's criterion of five females enrolled in a traditional male vocational program in a single school. Another three states checked and found no programs, and two more could not provide the requested information in discrete enough form to be useful. Five states sent the names of schools having programs with females enrolled which were considered by the project staff to be insufficiently nontraditional to be included in the sample. Thirteen other states sent the names and addresses of schools which they believed might have the required female enrollment. All of the schools suggested were contacted. Many of these schools reported that they did not, in fact, have female enrollments which met the study's criteria. The remaining nineteen states provided lists of schools, programs, and 1973-74 enrollment figures for these programs, based on reports submitted by the local schools to their state departments of education. Those schools with sizable female enrollment in "hardcore" male vocational programs were contacted and asked to verify their 1973-74 enrollment figures and to provide projected enrollment figures for the 1974-75 school year.

In the spring of 1976, as this project was drawing to a close, we conducted a follow-up survey of vocational enrollments in secondary schools in an effort to update our data. We contacted the departments of education in the fifty states and the District of Columbia, asking them to provide their aggregate secondary school enrollments for each vocational program by sex. Thirty-two states responded to our request. Unfortunately, technical problems in the manner of reporting made it impossible in half of these cases to determine female enrollments on the secondary level alone. Enrollments were reported by sex, but often with secondary, postsecondary, and adult enrollments combined.

From the data provided by the remaining fifteen states which were able to identify their female enrollments on the secondary level by program, we found no great increases in the numbers of high school women enrolling in traditional male vocational programs from 1973-74 to 1975-76. One state did provide figures for 1973-74 and 1974-75, including the percentage increases in female enrollments during that period. In that state the proportion of females enrolled in Metals increased 213 percent--an impressive gain. The actual number of enrollments however, simply highlights the small number of women enrolled in the Metals program: eight of 1510 in 1973 and twenty-five of 1595 in 1974. Percentages of females enrolled in the Trade and Industrial programs (aggregate) in the fifteen states which provided usable data ranged from a low of 2 percent to a high of 22 percent in 1975-76. (It must be remembered that the T&I program area includes at least one hardcore traditional female program--cosmetology--and that the large numbers of females who choose this program boost the overall percentage of women enrolled in the T&I vocational area.) The percentages of women in agriculture programs (aggregate) in these fifteen states ranged from a low of 3 percent to a high of 22 percent in 1975-76. (Female enrollment in ornamental horticulture may boost the percentages in this area.) It can be seen, therefore, that while the numbers of females enrolled in nontraditional programs may be increasing slowly, the same is not true of proportions.

In the process of verifying enrollment figures with the local schools, a number of inaccuracies were revealed in the data obtained at the state level. When contact was made with these school districts, it was frequently found that females had either never been enrolled in the cited program(s), or that they had been enrolled in much smaller numbers than indicated by the lists received from the state departments of education. The reasons for the discrepancies could not be verified--perhaps some states' figures do not reflect course completions but simply the number of students enrolled in class on the first day of the term. Perhaps the errors resulted from carelessness in transferring figures from local school reports to district reports to state report forms. In some cases, the person who provided the project team with information may have erred in copying figures from state reports, or in identifying courses coded with Office of Education numbers. Follow-up contacts, however, revealed enrollment discrepancies even in some states which provided the project team with computer printouts of enrollments. An earnest attempt was made to document the enrollment of females in traditional male vocational programs throughout the country, but the presentation of the data must be prefaced with a strong caveat concerning potential errors.

Selection of Sample

A list of schools and programs to be considered for possible inclusion in the sample was compiled and submitted to the team of vocational educators who served on the advisory board for the project. At the outset, it had been hoped that schools could be identified in which a number of females were successfully enrolling in hardcore traditional male vocational programs such as auto mechanics. The search described above did not uncover sizable enrollments in such programs. Thus, the schools ultimately selected to be included in the sample were those in which females had begun to enroll in vocational programs traditionally associated more with males than with females, but which do not represent the extreme male end of the traditional vocational spectrum. In other words, the programs finally selected were not as hardcore traditionally male as had been planned.

The advisory board, in consultation with the project staff, selected the programs which, in their judgment, should be visited and evaluated. Of sixteen letters sent to school districts inviting them to participate in the study, eleven acceptances were received. These schools made up the study sample. After securing the cooperation of the school districts, each district was asked to designate a person to serve as a local coordinator with responsibility for local data collection and liaison between the participating school and the project staff.

Prior to the site visit by the advisory team, sociodemographic and economic background information was collected from the U.S. Census Reports and from the chambers of commerce in the sample areas. In addition, prior to the site visit, an appropriate school administrator in each district completed a preliminary data form which provided general information about vocational education at the school (enrollments, faculty size, and budget), and more detailed information concerning the program(s) to be studied, such as admissions criteria, recruitment methods, and program objectives (see Appendix B-1).

Description of Sample Sites

The schools in the sample will not be identified by name in this report. The information that follows, however, describes the schools which were visited and the communities in which they are located. Of the eleven schools selected, five are area vocational-technical schools; the remaining six are comprehensive senior high schools (see Table 3-1).

Two of the schools are located in major metropolitan areas--one on the west coast and one in the Southwest. Six of the schools are located in rural or semi-rural areas--a town of 15,000 in the Midwest, an Indian reservation in the Southwest, two communities of less than 2,500 people in northcentral states (one of the towns is located within commuting distance of two major cities), and a town of 15,000 in the West. The remaining three sites included a suburb of 9,000 within commuting distance of a major eastern city; a city of approximately 45,000 in a southeastern state; and a resort county on the east coast.

TABLE 3-1

Administrative Data-Sample Schools

Item	Vocational Schools					Comprehensive Schools					
	A	B	C	D	E	F	G	H	I	J	K
Number of vocational programs offered	18 class offerings	6 day 7 night	28 Clusters	39	16	7*	19 class offerings	23	4	5	8
Number of teaching faculty (all areas)	115/0	15/8	108/0	54/1	34/2	57/1	99/0	37/0	31/0	39/0	34/3
M: fulltime/part-time	85/0	14/5	63/0	40/0	30/0	34/1	47/0	24/0	18/0	27/0	22/1
F: fulltime/part-time	30/0	1/3	45/0	14/1	4/2	23/0	52/0	13/0	13/0	12/0	12/2
Number of fulltime vocational faculty (M/F)	5/1	15/8	47/22	54/1	34/2	5/1	12/9	37/0	4/3	3/2	7/4
Number of administrators											
Male	6	1	11	3	2	2	4	4	3	2	2
Female	0	0	0	0	1	0	0	1	0	0	0
Number of counselors	3M/3F	1M/0F	1M/0F	2M/0F	0	2M/1F	3M/3F	1M	0M/1F	1M/1F	2M/0F
Number of placement officers	-	-	-	1F	1M	-	1F	1M	1M (Part-time)	-	-
Number of sending schools	C	8	18	11	30	C	C	5	C	C	C
Total population of sending schools (OR total comprehensive school population)	2,470	2,516	34,741	19,425	27,000	1,088	2,457	4,018	447	803	504
Total vocational school enrollment (OR vocational program enrollment at comprehensive school)	463	140	1,905	1,730	1,360	252	1,053	738	221	291	-
(Male)	(294)	(102)	(975)	(1,145)	(962)	(N.A.)	(609)	(461)	(181)	(177)	(N.A.)
(Female)	(169)	(38)	(930)	(585)	(398)	(N.A.)	(444)	(277)	(40)	(114)	(N.A.)
Total budget of sending schools	-		N.A.	$84M	N.A.	-	-	$11.7M	-	-	-
Total school budget	$2.3M	$350,000	$2.5M	$1.66M	$1.2M	N.A.	$1.89M	$1.06M	$1.6M	$52,600	$2.8M
Total budgeted for vocational education (in comprehensive school)	$44,000 ag. only	-	-	-	-	N.A.	$14,000	-	$32,153	$12,941	$32,769
Vocational education program fund sources:											
local	53%	55%	50%	10%	N.A.	N.A.	N.A.	40%	N.A.	N.A.	45%
state		20%	50%	82%	N.A.	N.A.	N.A.	22%	N.A.	N.A.	45%
direct federal	47%	25%	0%	08%	N.A.	N.A.	N.A.	38%	N.A.	N.A.	10%

N.A. = not available

*This school participates in a consortium with other schools. The number of courses students can elect is thirteen, seven of which are offered at the sample school.

Site A

This comprehensive high school is located in a small town of 15,000 in a western state. Farming is the county's largest source of income. The town is within commuting distance of the state capital in an adjoining county, and almost half of the town's workers are employed outside the county--presumably many of them are state employees. The biggest local employers are food manufacturers, meat packers, and a molding mill. The area is a distribution center for farming, lumbering, and mineral products.

The school enrolls 2,500 students. Approximately 460 are enrolled in the eighteen vocational classes offered by the school (of these 460, almost 300 are male). In 1974-75 the enrollment of females in several of the formerly all-male agricultural classes equalled or exceeded five. These classes included landscape horticulture, outdoor education, plant science, and animal science. As recently as 1967, females were not allowed to become members of Future Farmers of America, and all of the agriculture classes offered at this school were male-dominated. One of eight female teachers of agriculture in the entire state taught animal science at this school.

Site B

A midwestern community of 15,000, this town is the center of a heavy milk producing area and is steeped in the history and legends of the Old West. The town has forty diversified industrial firms, including those which produce aircraft components, concrete products, seed and grain products, oil field equipment, and foundry products.

The school selected for the sample is part of a statewide system of area vocational-technical schools. It enrolls approximately 500 students, 140 of whom are secondary students. (Of these 140, thirty-eight are female.) Six vocational programs are offered during the day; seven at night. The school serves five area high schools, one junior high school, and two community junior colleges. Ten secondary-age females were enrolled in vocational agriculture in 1974-75 and five in drafting. Nine postsecondary females were enrolled in machine shop.

Because several other schools had been visited which had at least five females enrolled in vocational agriculture, and because all of the machine shop enrollees were postsecondary, a site visit was not made to this school. However, information was collected from the administrators and questionnaires were administered to selected students and parents.

Site C

The city in which this sample school is located has a metropolitan population of more than 1,000,000. The city is a manufacturing, financial, and distribution center with large electronics and aerospace industries, and it ranks high in cotton, oil, and consumer goods production and distribution.

The innovative educational complex selected for inclusion in the study has been in operation since the early 1970s. The facility is multi-purpose, combining a regular comprehensive high school, a vocational career development center, and an adult education program. Careers are organized into twenty-eight clusters. Total student enrollment in 1974-75 in these career clusters was 975 males and 930 females. Students normally spend three hours daily working in a career cluster. Six career clusters were identified which had enrolled five or more students of the nontraditional sex. The programs which were nontraditional for females and their female enrollments for 1974-75 were plastics (thirty-six females), graphics (nineteen females), photography (forty-six females), and television arts (fourteen females). The programs which were nontraditional for males and their male enrollments for 1974-75 were business occupations (six males) and foods (twenty-three males).

One member of the visiting team indicated that "the school's philosophy appeared to be more student-needs centered than is usually found in a more traditionally-oriented vocational approach." Equipment and hardware in this school are some of the most industrially advanced that one is likely to see in a vocational school. The school deals with three racial groups--black (29 percent), white (65 percent), and Hispanic (6 percent), and there appears to be little informal mixing of these groups.

Site D

This suburb of 9,000 people is located approximately thirty miles from a major eastern city. It is part of a county which in the last twenty years has grown from a rural community of 82,000 people to become a thriving suburb of 308,000. The area is a retailing hub, a distribution center, and a site for the manufacture of steel, defense and space-exploratory equipment, and chemicals.

The school is a county technical school with twenty-nine course offerings and an enrollment of about 1,700 students, 60 percent of whom are male. This school enrolls students from eleven sending schools. Students attend on a "two-week about" schedule, i.e., students alternate two weeks fulltime at their home school and two weeks fulltime at the vocational school. This arrangement has been used for the last sixteen years and appears to be quite successful in providing continuity to the instruction. The programs observed were printing (fifteen females enrolled), civil technology (six females enrolled) and industrial chemistry (fifteen females enrolled).

This is a "traditional" vocational school with a businesslike atmosphere and with heavy emphasis on preparation for employment, exemplified by the presence at the school of a fulltime employee of the State Employment Service who places graduates in jobs.

Site E

The city in which the selected school is located is a major metropolitan area with a population of more than 400,000. The city also includes electronics and computer industries. It serves as a processing and shipping center for the surrounding agricultural area, known for its wine grapes.

The school is a regional vocational center which offers sixteen major career programs, including more than fifty "specialty areas." Student enrollment is approximately 1,400 (70 percent male). Thirty area schools with a total student population of 27,000 send students to this vocational center for half-day sessions.

A number of females were enrolled in a variety of traditional male vocational areas including industrial drafting, machine shop, metals testing, welding, and electronics (part of electromechanical technology). However, only in the electromechanical technology cluster were there more than five young women enrolled. This area, which includes electrical technology, electronic circuitry, and radio/TV repair, had a total of thirty females enrolled in the 1974-75 school year.

Site F

Many of the students are members of farm families in this predominantly agricultural area in a northcentral state. An "agricultural awareness" is in evidence in the community--a great interest in ecology and gardening. At the same time, the town of less than 2,500 is becoming a "bedroom community" for a large midwestern city. The area is middle class, with approximately 50 percent of the high school students going on to college.

The local comprehensive high school which was included in the sample is part of a consortium of six schools. Each school in the consortium specializes in one or more vocational areas. Students are bussed for two periods a day from their home school to the participating school which offers the vocational programs they wish to take.

Total high school enrollment in the subject school is 1,088. Of these students, approximately 274 (25 percent) are enrolled in vocational programs--252 at the sample school, which offers seven programs, and the remainder at other schools in the consortium. Seventy-four males and thirty-two females were enrolled in the vocational agriculture program in 1974-75.

Site G

This southeastern city with a population of approximately 45,000 owes much of its growth to the space program of the 1960s. The school--a comprehensive nongraded school--was responsible for educating the children of many of the nation's leading space scientists, and in the 1960s it was ranked academically as one of the top schools in the country. It is still viewed by its administration, faculty, and staff as unique and nontraditional. The phrase "the philosophy of our school," spoken with pride, is heard frequently.

More residents of the city are employed as "professional, technical, and kindred workers" than in any other occupational category. Major employers are the electronics and data processing industries.

A relaxed and informal atmosphere prevails on the campus of the local comprehensive high school. The school stresses flexibility, and vocational offerings can be taken as electives by college-bound youth. Thus, many of the students in the vocational programs observed were not career-oriented toward those areas. Of the approximately 2,450 students attending this school, more than 1,000 (609 males, 444 females) were enrolled in the nineteen vocational courses offered in 1974-75. The classes which met the study's criterion of five nontraditional enrollments were electronics, drafting, and architectural drawing (with enrollments of twenty-one, twelve, and twenty-one females respectively), and foods, child care, and home furnishings (with enrollments of fifteen, thirty-two, and twenty-two males respectively).

Site H

This community is part of a seashore area whose summer population is approximately eight-and-one-half times its winter population. Thus, the local labor market is very seasonal. In the winter, the rate of unemployment is as high as 25 percent; during the tourist season, however, almost every working-age member of the average family is employed.

The selected school is an area vocational school with an enrollment of approximately 750 students (62 percent of whom are male) who come from five different "sending schools." Students are bussed to the school from their home schools for half-day sessions. This school offers twenty-three different vocational options.

Site I

This northcentral community of less than 2,500 people is surrounded by farm land. Huge grain elevators dominate the landscape. Observations suggest that the town is highly conservative and traditional in its attitudes.

The community school had a total enrollment (1974-75) of 447 students, 221 of whom were taking vocational courses. Twelve females were enrolled at the school in livestock science, part of the vocational agriculture program and an acceptable course for fulfillment of the science requirement for graduation. For the first time, students from the school were being bussed to a nearby area vocational center. This highly structured school exacted harsh punishments for rule infractions, and the entire community atmosphere reminded one member of the visiting team of a "little town out of the 1950s." However, female athletes at the school had recently conducted a successful campaign to be admitted into the varsity letter club, so the town and school provide a study in contradictions.

Site J

This school and its location--an Indian reservation in the Southwest--are unique in the sample. Major employers in the area are the U.S. Public Health Service and the U.S. Bureau of Indian Affairs, which is currently working with the community to develop a major irrigation project. Until recently, the reservation was home to a multinational manufacturer, but this company left following a labor dispute.

In 1974-75, the comprehensive high school had an enrollment of 803 students, 291 of whom were taking one of the five vocational programs which are offered by the school. The program selected for observation was production agriculture, with an enrollment of thirty-one females. The culture of the reservation is heavily matriarchal and female enrollment in vocational agriculture programs is, in fact, traditional and not viewed as unusual by the people in the area. Students at this school tended to be rather shy and retiring, and the atmosphere was quieter than that in most public schools. No real feeling of community was sensed at this school. Teachers perceive some conflict between their dual roles of a) enabling the students to relate to the society in which they must live, and b) helping the students to maintain a sense of closeness with their own culture and family values.

Site K

This northcentral community of less than 2,500 people is located in a county which is 78 percent rural. The major industry in the area is the production and processing of turkeys. Maple syrup is another local product.

The local "consolidated" school serves students from four small towns (and schools) who are bussed to the sample school for vocational programs. Total school enrollment is 504. The school had more than five females enrolled in two traditional male vocational programs--vocational agriculture (twenty-five females) and graphic arts (thirty-nine females). A graduate of the school was about to receive her college degree in agriculture--a first in the state, and a source of pride for both the school and the community. The school uses a modular system of scheduling which, according to the students who were interviewed, facilitates their exploration of diverse program offerings. At the same time, these students indicated that many parents oppose the flexible scheduling and that this is a point of contention between the school and the town.

Site Visits

Visits were made to ten of the eleven schools selected for the sample during the spring of 1975.[5] The procedure followed during these visits was for the visiting team to meet with the appropriate school officials for an evening orientation session. The school visit took place the following day. At each school, the visiting team of vocational educators and the project staff interviewed teachers of nontraditional students, observed classes, interviewed counselors, administrators, and students (of both the traditional and nontraditional sex for the programs), and made arrangements for generating a sample of present and former students (in both traditional and nontraditional programs) and parents to whom questionnaires could be administered.

Structured interview schedules were used for teacher and counselor interviews (see Appendix B-2, and 3). The teacher's form included questions concerning the program which was being examined (objectives, typical occupations for which it prepares students, level of skills expected of new students in the program), and a series of items which asked teachers to discuss their experiences and attitudes concerning the female and male students enrolled in their programs.

The counselors were asked about their guidance activities and materials--specifically with regard to encouraging females to seek careers in the trades and other traditional male occupations. Other questions concerned typical occupational interests of students, the reasons for their course choices, the influence of parents on students' career choices, and counselors' attitudes toward students who express nontraditional vocational interests and other related matters.

During each site visit, semistructured interviews were conducted with small groups of students. These groups usually consisted of four to five females enrolled in a traditional male vocational program, an equal number of males from the same program, and several males and females in traditional programs. If males were enrolled in traditional female programs, they were interviewed along with females from these programs.

Wherever possible, members of local school boards and advisory committees were also interviewed by a member of the visiting team.

After each site visit, each of the members of the visiting team (advisory board members and project staff) submitted a short memorandum which outlined their impressions of the site with regard to the objectives of the study.

Sampling and Data Collection

Current Students and Parents

Each local coordinator was asked to draw a sample of students presently enrolled in programs nontraditional for their sex. Each of these students was to be matched with a student of the traditional sex in the same program. Matching was done on the basis of race and academic aptitude, as measured by the most recent IQ or reading achievement score available in the student's file. Because most of the students in this sample were under 18 years of age, parental permission was secured before questionnaires were administered to them (see Appendix B-4). Each local coordinator reproduced a letter to parents using the school's letterhead and signed by the principal which briefly explained the study and requested their permission. After the parents agreed that their children could participate in the study, questionnaires were administered to these students. Table 1 lists the number of parental requests distributed and the number and percentage of usable questionnaires completed for each of the study sites.

In early July 1976, a parent questionnaire was mailed to the family of each current student who returned a completed questionnaire. The information requested in the parent questionnaire paralleled and supplemented, in abbreviated form, much of that covered in the student questionnaire: family background, including favorite toys and household chores; influences on course choice, career plans, satisfaction with child's education; and the respondent's perceptions of appropriate roles for men and women (see Appendix B-5). A second mailing was sent to parents who had not returned a questionnaire after three weeks. Table 3-2 presents the number and percentages of usable parent questionnaires received from each study site, and Table 3-3 indicates the response to the separate mailings.

TABLE 3-2

Number of Questionnaires Distributed and Returned by Site

Site	Current Students			Parents			Former Students		
	Parental Permission Slips Distributed	Questionnaires Returned N	Questionnaires Returned %	Distributed	Returned N	Returned %	Distributed	Returned N	Returned %
A	52	22	42	22	18	82	24	18	75
E	50	11	22	11	7	64	11	5	45
F	312	126	40	124	80	64	182	84	46
G	80	46	57	46	33	72	20	13	65
H	60	18	30	18	15	83	8	3	37
K	64	33	51	31	23	74	30	24	80
N	136	102	75	96	68	71	169	69	41
O	48	40	83	39	14	36	35	10	28
S	50	35	70	33	25	76	92	52	56
T	62	30	48	28	17	61	6	3	50
Z	100	57	57	57	36	63	166	75	45
Totals	1,014	520[a]	51	505[b]	336[a]	67	743	356[a]	48

[a] These figures represent the number of usable questionnaires returned, i.e., the number used in the data analysis.

[b] The number of questionnaires distributed to parents is less than the number of current student questionnaires returned because of apparent errors in the addresses provided by a few students and because several families had more than one child participating in the study.

Former Students

In addition, the local coordinator drew a sample of former students (graduates of the classes of 1972, 1973, and 1974) who had completed vocational programs which were nontraditional for their sex. Each of these former students was also matched with a person of the opposite sex who had completed the same program in the same year. The school provided only names and addresses; all further contacts with these former students were made by the project staff.

The survey of the former students was made by mail and personal interview. A first mailing of the questionnaire was sent in mid-July 1975 to all the former students on the lists prepared by the coordinators. This questionnaire included many of the same items about family background, satisfaction with education, and female and male roles as did the current student and parent questionnaires. It also included a section on employment experiences and post-high school education and training (see Appendix B-6). Three weeks after the first mailing, a list of the names of those who had not responded to the first mailing, minus those which were returned as undeliverable, was divided approximately in half. One half was sent a second mailing and the other half was assigned to interviewers to be contacted personally. Those from whom no response had been obtained within six weeks were sent a third mailing in the last week of September 1975. In the third mailing a dime was enclosed as a response incentive. The returns produced by the four contacts are shown in Table 3-3. The dime incentive was quite productive; it generated an additional 13 percent response from a sample that had been contacted twice before.

TABLE 3-3

Response Rates to Mailings by Former Students and Parents of Current Students

	Number			Percent Returned	
Mailings to Former Students	Mailed	Undeliverable	Usable Questionnaires	Total Sample	Minus Undeliverable
First mailing	743	64	148	20	22
Second mailing	238	11	38	5	6
Interviewers	293	NA	77	10	12
Third mailing	439	2	93	13	14
Totals		77	356	48	53
Mailings to Parents					
First mailing	505	7	188	37	38
Second mailing	310	-	148	29	30
Totals		7	336	67	67

Whenever a mail survey is conducted, the question arises as to how representative the respondents are of the total sample. On the assumption that the information that was collected by interviewers or in response to the third mailing would tend to reflect the characteristics of non-respondents, comparisons were made across mailing/interviewer for the 152 variables on which data were available. This analysis yielded only nine differences significant at the .05 level or less. Six of these differences were related to the tendency of respondents to the first mailing to engage in more traditional female activities. They were more likely than the later respondents to have played with dollhouses when they were children, to have cooked, made beds and done dishes while attending high school, to be out of the labor force because they were housewives, and to expect to continue to be housewives one year in the future. The results on these six variables are summarized in Table 3-4. These differences are not due solely to a higher proportion of female respondents to the first mailing. The proportion is slightly higher (61 percent compared to an average of 51 percent in the other three groups), but this sex difference is not significant.

TABLE 3-4

Six Variables on Which the Differences Across Respondents to Three Mailings/Interviews Were Statistically Significant

Variables	Mailing			Interviewer
	1st	2nd	3rd	
	%	%	%	%
Played with dollhouse as a child	44	24	36	23
Chores performed while in high school-				
Cooked meals	50	40	29	38
Made beds	66	56	46	64
Washed and dried dishes	71	63	50	69
Homemaker at time of completing questionnaire	13	11	4	4
Expect to be homemaker one year from now	15	24	8	8
Base number	148	36	93	73

The differences across groups on the variables shown are all significant at the .05 level or less.

Significant differences occurred on three additional variables across the mailings/interviews. On a measure of appropriate roles for females, the respondents to the first mailing were most likely to endorse traditional roles. The respondents to the third mailing were the most likely to report high school grades below average. The respondents who were interviewed were the most likely to be in the labor force.

None of the other differences on the remaining 143 variables was statistically significant. The variables that did not differ included the important classification categories and measures of educational and employment experience. Because the similarities in the groups were far greater than the differences, weighting for possible nonresponse bias was considered unnecessary.

Characteristics of the Sample

Tables 3-5 through 3-9 present some basic background data on the characteristics of the current and former students. These data are presented merely to provide an overview of the characteristics of the respondents. No attempt is made at this point to relate these characteristics to possible reasons underlying the choice of a nontraditional curriculum. These issues are discussed at appropriate points in the following chapters.

TABLE 3-5

Sex of Current and Former Students
by Traditional/Nontraditional Enrollment

Course Classification	Current Students		Former Students	
	Female	Male	Female	Male
	%	%	%	%
Nontraditional	49	23	49	18
Traditional	39	62	43	79
Nonclassifiable	12	15	8	3
Base Number	294	220	195	160

TABLE 3-6

Grade Level of Current Students and Year of Graduation of Former Students by Sex and Traditional/Nontraditional Enrollment

Current Students Grade Level	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Tenth grade or less	38	33	22	29
Eleventh grade	41	31	34	31
Twelth grade	22	36	44	40
Base Number	144	115	50	134
Former Students Year of Graduation				
	%	%	%	%
1972	25	29	28	25
1973	30	18	17	30
1974-75	45	54	55	45
Base number	95	84	29	126

TABLE 3-7

Color/Ethnicity of Current and Former Students by Sex and Traditional/Nontraditional Enrollment

Color/Ethnicity	Current Students				Former Students			
	Females		Males		Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%	%	%	%	%
White	76	71	37[a]	85	93[a]	76	60[a]	93
Black	20	28	56	12	4	22	32	4
Hispanic	4	1	4	2	3	2	8	3
Other	–	–	2	–	–	–	–	–
Base number	119	98	46	106	74	53	25	75

[a] The differences between nontraditional and traditional students of the same sex are statistically significant at the levels shown:

Current males, chi square = 38.32, *p* <.001
Former females, chi square = 11.00, *p* < .02
Former males, chi square = 17.15, *p* < .001

TABLE 3-8

Level of Education of Mothers of Current and Former Students, By Sex and Traditional/Nontraditional Enrollment

Educational Level	Current Students				Former Students			
	Females		Males		Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%	%	%	%	%
Grade school or less	8	4	10[a]	4	2	4	17	8
Some high school	26	25	26	20	19	26	21	15
High school graduate	32	40	26	40	39	44	21	42
Vocational business school	6	6	8	6	11	8	10	9
Some college	8	12	2	14	15	8	14	13
College graduate or more	14	10	10	12	13	5	14	11
Don't know	6	3	16	5	1	6	3	2
Base number	141	114	49	131	94	80	29	123

[a] Difference between traditional and nontraditional male current students significant, chi square = 16.31 $p < .02$

TABLE 3-9

Respondents' Estimates of High School Grades, Current and Former Students by Sex and Traditional/Nontraditional Enrollment

Grade Estimates	Current Students				Former Students			
	Females		Males		Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%	%	%	%	%
Far above average	9	12	4	7	NA	NA	NA	NA
(Well) above average[a]	36	41	34	36	24	13	0	9
Slightly above average	34	41	42	39	55	61	69	68
Slightly below average	17	5	20	12	20	25	31	20
(Well) below average	3	2	0	4	0	1	0	2
Far below average	2	0	0	2	NA	NA	NA	NA
Base number	145	118	50	136	94	84	29	123

[a] For the former students the scale had only four points from "well above average" to "well below average."

NA = Not applicable.

Although the selection procedure should have yielded equal numbers of traditional and nontraditional students for each sex, it is obvious that such a distribution was not obtained. As Table 3-5 indicates, the male samples are particularly overweighted with traditional students. This appears to be due more to the limited number of nontraditional males in the schools than to systematic differences in response rates.

The classifications "traditional/nontraditional" used in the analysis were based on the enrollment patterns in each of the schools studied, plus the local coordinator's judgment as to which programs were appropriate for each sex. Some programs, especially food-related occupations such as baking, were traditional for males in some schools and for females in others. The way in which the programs were regarded in their communities determined the classifications reported in the tables of this report. As can be seen in Table 3-5, many of the respondents were enrolled in programs that could not be classified traditional or nontraditional because they had always included significant numbers of both sexes. These respondents were omitted from the analyses.

In the remaining tables, relatively few significant differences appear between traditional and nontraditional students of the same sex. The major exception occurs in Table 3-7 in which significant differences obtain in the color/ethnicity variable. Among the males, both current and former, nontraditional students were significantly more likely to be nonwhite. Among the females, the difference was reversed for the former students--nontraditionals were significantly more likely to be white--while the difference between the current students was not significant.

Calculation of Factor Scores and Indices

To reduce the number of variables that the analysis had to deal with and to increase the reliability of the scores assigned to respondents, a number of factor scores and indices were calculated. These combined the information from several related questions into summary scores which were then used in other analyses. The methods used to calculate the factor scores were a principle components analysis and a varimax rotation. The factor patterns resulting from these operations were used to calculate standardized factor scores with a mean of 50 and a standard deviation of 10. The computer programs used for these analyses were taken from the second edition of Statistical Programs for the Social Sciences. To be included in the factor analysis, each respondent must have responded to 75 percent of the questions included in the analysis. If a respondent met this criterion but had one or more missing items, the mean value of the missing item, as calculated from the total sample, was inserted. Using this general procedure, the following factor scores were calculated. Tables appear in the pertinent text unless otherwise indicated.

1. Socioeconomic Indicator 2 - Education, Occupation of Parents (Appendix Table C-1).
2. Socioeconomic Indicator 1 - Family Possessions (Appendix Table C-1).
3. General School Satisfaction - All Students.
4. Satisfaction with Vocational Courses - Vocational Students.
5. Female Tasks Score.
6. Male Tasks Score.
7. Female Career Roles.
8. Traditional Female Role.

For the factor scores 7 and 8, three separate sets of data were available: on current students, parents of current students, and former students. Separate factor analyses were conducted for the three groups of respondents, and highly similar factor patterns were obtained for all three.

9. Self-esteem, Negative Items (Appendix Table C-2).
10. Self-esteem, Positive Items (Appendix Table C-2).

In addition to these scores, three additional indices were calculated by comparing the percentage of traditional male and female students who indicated that they usually played with thirteen different types of toys or usually did thirteen different household tasks. The differences in the percentages of traditional males and traditional females who responded to these items, adjusted to assure statistical significance, were used as weights to calculate toy and task indices:

11. Toy Index, Current Students.
12. Toy Index, Former Students.
13. Task Index, Former Students.

Factor scores were not calculated for the items that make up these indices because all of the responses were dichotomous, and on many of the items the results were quite extreme. That is, either virtually all of the traditional males and very few of the traditional females reported engaging in the behaviors in question or vice-versa.

Summary

In order to determine which factors in the schools, homes, and communities influence students' vocational program choices, a search was conducted to locate ten high schools in which five or more females were enrolled in traditionally male vocational programs. Only sixteen schools met the study's criteria, and of these, eleven were included in the study sample, which represents a wide range of geographic and socioeconomic characteristics.

The schools were visited by members of the project staff and its advisory board, who observed classes and interviewed administrators, teachers, counselors, and students. Local coordinators at the schools generated a sample of current and former students and parents to whom structured questionnaires were administered.

Sample students currently enrolled in classes nontraditional for their sex were matched with traditional students in the same program on the basis of race and academic aptitude. Parents of current students and traditional and nontraditional former students were also sent questionnaires. (The classifications "traditional" and "nontraditional" were based on the local coordinators' judgments and typical school enrollments.) All of the questionnaires addressed, to some degree, factors such as family background, influences on course choice, career plans, educational satisfaction, and attitudes toward sex roles. Former students were also asked about employment experiences and post-high school education and training. First, second, and third mailings were sent when necessary.

Comparisons were made across mailing/interviewer for the 152 variables on which data were available in order to determine whether or not the information collected by interviewers or that given in response to third-mailing questionnaires reflected the characteristics of nonrespondents. Only nine significant differences emerged. In addition, to reduce the number of variables that the analyses dealt with and to increase the reliability of the scores assigned to respondents, a number of factor scores and indices were calculated for respondents who had answered 75 percent or more of the questions.

Relatively few significant differences emerged between traditional and nontraditional students of the same sex. Nontraditional males were more likely to be nonwhite; however, nontraditional females were more likely to be white. Nontraditional females were more likely to be found in vocational, as opposed to comprehensive, high schools. Detailed information on characteristics of students, parents, teachers, and counselors is provided in subsequent chapters.

Footnotes

[1] The focus of this study was the role that the schools can play in widening occupational opportunities for women. Thus, schools were selected for the sample on the basis of their enrollment of "nontraditional" females. However, data were also collected for any males enrolled in traditional female vocational programs in the sample schools.

[2] A directory of federal and state officials in vocational education, published in the April 1974 issue of School Shop, was invaluable in enabling us to make these contacts. The U.S. Office of Education, Division of Vocational and Technical Education, can now provide a similar listing of state directors of vocational education.

[3] The initial contacts were made late in the summer of 1974, prior to the 1974-75 school year.

[4] During the follow-up phase of the study, the study team received information about two exemplary projects in Texas and North Carolina which were designed to broaden occupational education opportunities in secondary schools. Both projects had begun too late for inclusion in the present study's sample, but they represent the types of programs the study team had hoped to find. These projects--EVE and New Pioneers--are described in Appendix A.

[5] The site visit to one school was cancelled. Data were collected, however, and questionnaires were administered.

PART III
THE STUDENTS

CHAPTER 4

INFLUENCES ON THE CHOICE OF A NONTRADITIONAL PROGRAM

Introduction

A number of analyses were conducted in an attempt to identify some of the important influences on students' vocational decisions. Some differences were found between traditional and nontraditional students in such areas as exposure to guidance activities, future plans, and personal characteristics, but it is not clear that the nontraditional students were the products of an identifiable set of influential experiences. Nontraditional female students were, however, exposed to parental attitudes that differed somewhat from those that traditional students were exposed to.

This chapter comprises four major sections. The first examines the family environment of the students as reflected in their own and their parents' attitudes toward appropriate male and female roles, the toys the students played with as children, and the household tasks they performed. The second section concerns school-related experiences, such as participation in career guidance activities, and interpersonal contacts that could influence curriculum choices. The third section brings many of these separate variables together in a multiple regression analysis. This analysis yielded two variables that were significant for both current and former students when the effects of other variables were held constant: nontraditional females were more likely to be found in vocational rather than comprehensive high schools; and nontraditional males were more likely to be nonwhite than white. The fourth section examines the future plans of the current students with regard to jobs, additional education, and marriage.

The Family Environment

The family provides the first, and probably the most important, training in the behavior that is considered "appropriate" for each sex. The influences at work in a family are many and mutually reinforcing, but among the most important are parental attitudes toward children's behavior, the kinds of toys provided for children, and the types of household tasks the children perform. Other studies have shown that there are clear differences in the toys and tasks of boys and girls (see, for example, Lynch (1975) and Denzin (1975), cited in Chapter 2).

Information was collected on these variables to determine whether students who entered traditional and nontraditional programs were influenced by different parental attitudes or by exposure to different toys and tasks. If the parents of nontraditional students held less rigid attitudes toward sex roles, these would probably be communicated to their children and would also be reflected in the toys they provided them, the tasks they required them to do, and the household tasks which the parents performed themselves.

Clear differences were found in the attitudes and in the toys and tasks which are customarily associated with each sex. There was little indication, however, that the nontraditional students differed from traditional students of the same sex.

Since the data on these variables were collected from three sources--the current students, their parents, and former students--it was possible to conduct a number of intergroup comparisons. These comparisons yielded consistent results, very few of which indicated any significant differences between traditional and nontraditional students. The manner in which these comparisons were made and the results obtained are discussed separately for the attitudinal, toys, and tasks variables.

Attitudes Toward Appropriate Female Roles

To assess attitudes toward appropriate roles for men and women, all respondents were presented with a set of twenty-three attitudinal statements, such as "Most executive jobs can be handled better by men," and "A wife should devote a lot of time to satisfying her husband." They were asked to respond to these on a five point scale from "strongly agree" to "strongly disagree." (See Q72 in Appendix B-4, Q22 in Appendix B-5, and Q25 in Appendix B-6). The items were scored so that an endorsement of traditional female roles received the highest weight. For example, on both of the items presented above, a "strongly agree" response was scored 5, while for an item like "A woman should be able to hold and be promoted in any job she prepares herself for," a "strongly disagree" response was scored 5.

All of the items were intercorrelated and factor analyzed using the general procedures discussed in Chapter 3. Of the twenty-three items, seventeen were found to have significant loadings on two common factors. These seventeen items were reanalyzed for each of the groups of respondents separately. The factor patterns for the three groups were highly similar, as Table 4-1 demonstrates. The factor loadings in Table 4-1 are interpreted just like correlation coefficients; in fact, the loadings really represent the correlations between the items and the factor. The closer the loadings approach 1.00, the more the items correlate with the factor; the closer they approach .00, the less they correlate.

TABLE 4-1

Varimax Rotation of Factor Matrix for Attitudes Toward Appropriate Females Roles, Current Students, Their Parents, and Former Students

Questionnaire Items (Numbers 72 and 22, 25)	Career Factor			Traditional Factor		
	Current Students	Parents of Current Students	Former Students	Current Students	Parents of Current Students	Former Students
Women should stick to "women's" jobs such as ... (g,e)	.65	.65	.53	.29	.33	.39
Most executive jobs can be handled better ... (c,b)	.57	.67	.53	.33	.13	.43
Most jobs can be done as well by women as men (aa,o)*	.52	.48	.66	.17	.08	.13
It is difficult for a woman to have her career ... (u,k)	.51	.45	.40	.18	.24	.15
A woman should be able to hold and be promoted ... (l,h)*	.49	.49	.58	.01	.01	-.00
The employment of mothers leads to juvenile ... (z,n)	.45	.55	.41	.23	.29	.38
A woman must get married to feel completely ... (d,c)	.44	.31	.32	.22	.32	.31
Having a challenging job or career is as important ... (x,m)*	.42	.53	.40	.15	.13	.26
Woman should avoid politics community activities ... (q,j)	.44	.36	.34	.44	.48	.44
There is nothing more fulfilling to a woman than raising ... (dd,q)	.09	.10	.11	.64	.68	.59
A woman's greatest natural ability lies in being ... (ii,t)	.16	.16	.18	.59	.69	.61
Except in special cases, the wife should do cooking (bb,p)	.35	.23	.32	.57	.60	.61
A wife should devote a lot of time to pleasing husband (j,f)	.22	.16	.19	.51	.32	.48
Man ought to feel free to relax when he gets home (p,i)	.07	-.00	.07	.44	.32	.34
Raising children is more a mother's job than father's (v,l)	.22	.26	.30	.40	.29	.22
Man who helps around the kitchen doing more ... (gg,s)	.34	.18	.34	.40	.44	.31
If the husband is working to support the family ... (ff,r)	.24	.10	.30	.35	.36	.19
Percent total variance explained	16	15	15	15	15	15

*All items marked * were scored so that "strongly disagree" = 5; in all those unmarked, "strongly agree" = 5.

[a] The higher the loading the more of the variance in the responses to the item is explained by the factor. A loading of 1.00 would mean all of the variance in a particular item is explained.

The results in Table 4-1 represent a cross-validation of these factors across current students, parents of the current students, and former students.

The factor patterns in Table 4-1 indicate that the responses to the seventeen items reflected two general attitudes. The first concerns the nature and importance of jobs for women, and the second concerns the importance of a woman being a wife and mother and maintaining the traditional division of male and female roles in the family. Respondents who endorsed the items that scored highly on the first factor were, in effect, denying that equal occupational opportunities are important to women. They agreed with such items as "Women should stick to "women's" jobs such as teaching, nursing, and secretarial work and not compete with men," and disagreed with items like, "Most jobs can be done as well by women as men." The second factor mainly reflects attitudes toward the proper role for women in the family. Once again, high scores reflect traditional attitudes, such as the importance of motherhood to the exclusion of outside jobs and the need for a clear separation of tasks in the family.

The fact that these two factors were identified so clearly in three different groups of respondents indicates that these factors reflect quite general and widely held attitudes toward appropriate roles for women in the labor market and in the family.

Although the factor patterns were quite similar across the three groups, they were not identical. So that comparisons could be made across the groups, the loadings were used to calculate factor scores for each respondent for both of the factors. These scores were standardized so that fifty was the mean score for each group and ten was the standard deviation. High scores indicate approval of traditional roles for females and low scores indicate approval of equality between the sexes.

The distributions of the factor scores for each of the groups of respondents are shown in Table 4-2. The groups are divided by the sex of the students and whether they attended traditional or nontraditional programs.

Consistent sex differences are revealed in Table 4-2, with male students (both present and former) and their parents more supportive of traditional roles than female students and their parents were. The hypothesized difference--that nontraditional students would favor equality more consistently than traditional students--was not found for eleven of the twelve comparisons. The one exception occurred in the career factor for parents of nontraditional females. These parents tended to endorse the importance of equal job opportunities for women more than parents of traditional females.

TABLE 4-2

Factor Score Distributions for Attitudes Toward Equal Opportunity and Traditional Female Roles, Current Students, Their Parents, and Former Students by Sex and Traditional/Nontraditional Enrollment

Factor[a] Scores	Current Students				Parents of Current Students				Former Students			
	Female		Male		Female		Male		Female		Male	
	Non-traditional	Traditional	Non-traditional	Traditional	Non-traditional	Traditional	Non-traditional	Traditional	Non-traditional	Traditional	Non-traditional	Traditional
	%	%	%	%	%	%	%	%	%	%	%	%
	Factor I: Female Careers											
30 or less	-	-	-	-	1[b]	1	-	-	-	-	-	-
31 to 40	27	25	4	4	26	8	13	12	22	20	14	22
41 to 50	41	39	38	31	39	49	20	39	47	40	34	29
51 to 60	29	34	44	36	21	35	53	34	27	33	38	46
61 or more	3	2	14	29	12	7	13	15	3	6	14	24
	Factor II: Traditional Female Role											
30 or less	3	3	4	1	2	2	-	2	2	-	-	-
31 to 40	15	11	6	7	15	9	10	10	22	13	-	4
41 to 50	39	39	40	44	37	39	33	36	38	43	24	30
51 to 60	30	39	44	38	37	40	43	43	32	36	48	53
61 or more	12	8	6	10	8	9	13	8	6	8	28	14
Base Number	145	118	50	134	99	75	30	88	95	84	29	125

[a] Difference between parents of female traditional and nontraditional current students significant chi square = 12.92 $p < .03$.

When the attitudes of current students were compared with those of their parents, modest but significant correlations were found for both factors. For the 336 matched pairs of current students and parents, a correlation of .20 was found for the career factor scores and a correlation of .21 for the traditional female role scores ($p = .001$). Parental attitudes, as reflected in these measures, apparently have a small but significant influence on the attitudes of their children.

Toys and Tasks

Information on the toys the students played with as children and the household tasks they usually performed was requested both from the students and from their parents. Data of this sort are especially prone to errors of selective recall--respondents report an idealized image of the child they remember and not the actual behavior of that child. Fortunately, it was possible to compare current students' reports with those of their parents. The method used to make these comparisons is the multitrait-multirater matrix. The reader who is interested in the technical details of this matrix is referred to Appendix C, Tables 3 and 4. Essentially, this analysis permits an estimate of the validity of data collected from two (or more) different sources on the same variables.

All of the responses concerning toys from both the current students and their parents were intercorrelated, as were all of the responses concerning household tasks. Almost all of these correlations were significant, which indicates that respondents definitely related the toys and tasks to sex. Some toys and tasks were clearly seen as male (e.g., trains and house repairs) and others (e.g., dolls and ironing) were clearly female. Among the various toys which were listed, only on the responses to playing with blocks were most of the correlations below statistical significance. In other words, blocks were the only toys that were not plainly identified with either sex. All of the correlations between the student and parent responses on the same toys and tasks were significant at less than the .001 probability level and were usually higher than other correlations. These results indicate that the respondents did discriminate among the toys and tasks and did not simply respond to "male" and "female" items.

Having established validity in the responses, the differences between male and female traditional students were calculated. This analysis was limited to traditional students. If, as hypothesized, nontraditional students had received greater exposure to toys and tasks not typical for their sex, including them in the comparison would have obscured traditional sex differences.

Tables 4-3 and 4-4 report the percentages of traditional males and females who played with the toys and performed the tasks listed as reported by the current students, their parents, and the former students. The differences are quite consistent across the three groups. Clearly, most of these toys and tasks are labeled "male" and "female" in the minds of the respondents.

The results of these comparisons of traditional students were used to construct indices of the extent to which all respondents, traditional and nontraditional, played with "male" or "female" toys and performed "male" or "female" tasks. The toy index was constructed by weighting each respondent's answer by the significant difference between the male and female percentages shown in Table 4-3. Appendix Table C-5 presents the details of this index. The highest score possible, 41.7, indicated that a respondent played only with "male" toys. The lowest score, .4, meant that the respondent played only with "female" toys.

The task index was constructed from a factor analysis of the current student's ratings of how often they performed the tasks listed. Instead of simply indicating whether or not they usually did the tasks, the current students reported whether they performed them "always" (weighted 3), "sometimes" (weighted 2), or "never" (weighted 1). Appendix Table C-6 shows the rotated factor matrix. As would be expected from the percentage differences in Table 4-4, separate male and female factors emerged. The rotated loadings were used to calculate factor scores for each respondent. As usual, the factor scores were standardized to a mean of fifty and standard deviation of ten. The highest score on the female factor indicated that the respondent performed only female tasks, and on the male factor only male tasks.

The toy and task scores were then compared across traditional and nontraditional students as shown in Tables 4-5 and 4-6. As in the attitudinal data, distinct sex differences were found; however, no significant differences were found between traditional and nontraditional students of the same sex.

It is obvious from these data that there are definite differences in the kinds of toys that male and female children play with and in the kinds of tasks they do in their homes. The sex-role training that these experiences provide, however, does not appear to influence the decision to enter a nontraditional curriculum. These measures offer no evidence that the socialization of nontraditional students is any different from that of traditional students.

Parental Influence

Several other questions were asked of parents which explored their general approach to discipline, whether or not they discussed course

TABLE 4-3

Toys Usually Played With as a Small Child as Reported by Traditional Current Students, Their Parents, and Traditional Former Students by Sex of Student

Usual Toys	Current Students			Parents of Current Students			Former Students		
	Female	Male	Male minus Female	Female	Male	Male minus Female	Female	Male	Male minus Female
	%	%	%	%	%	%	%	%	%
BB guns	12	58	46	4	35	31	14	60	46
Blocks	70	72	2[a]	60	66	6[a]	50	51	1[a]
Building sets	51	74	23	32	75	43	37	68	31
Doctor's kits	49	23	-26	32	20	-12[a]	36	16	-20
Dolls	94	12	-82	93	12	-81	95	1	-94
Doll houses	77	2	-75	68	1	-67	64	0	-64
Electric trains	18	66	48	7	61	54	19	57	38
Model kits (ships, cars, etc.)	18	82	65	8	84	76	14	84	70
Science kits	15	47	31	15	43	28	5	42	37
Sports equipment	46	82	37	31	73	42	36	75	39
Toy cars, trucks	40	93	53	31	89	58	40	86	46
Toy dishes, pots and pans	90	7	-83	88	4	-84	83	2	-81
Toy tool kits	18	68	50	9	56	47	13	56	43
Base Number	118	137		75	88		84	126	

[a] Difference between males and females not significant at the .05 level.
Any difference not footnoted is significant at the .01 level.

TABLE 4-4

Household Tasks Students Usually Performed While in High School, Reported by Traditional Current Students, Their Parents, and Traditional Former Students by Sex of Student

Usual Tasks	Current Students			Parents of Current Students			Former Students		
	Female	Male	Male minus Female	Female	Male	Male minus Female	Female	Male	Male minus Female
	%	%	%	%	%	%	%	%	%
Carry out trash, garbage	82	96	14	55	84	29	57	82	25
Clean the house	99	70	-29	84	34	-50	94	32	-62
Cook meals	87	69	-18	61	25	-36	62	19	-43
Do the ironing	81	27	-54	45	7	-38	63	7	-56
Do the laundry	82	44	-38	55	11	-44	56	8	-48
Make beds	97	90	-7[a]	84	57	-27	82	30	-52
Make small repairs on house	56	92	36	8	56	48	11	65	54
Mend clothes sew buttons	94	41	-53	49	7	-42	62	12	-50
Mow the lawn	65	92	27	36	89	53	49	88	39
Shop for groceries	77	63	-14[b]	37	25	-12[a]	37	14	-23
Take care of family car	60	87	27	15	54	39	11	44	33
Take care of younger children	72	71	-11[a]	53	27	-26	49	23	-26
Wash and dry dishes	97	74	-23	92	41	-51	89	37	-52
Base Number	114[c]	131		75	88		84	126	

Note: Questionnaire for current students asked them to indicate whether they did the task listed "always," "sometimes," or "never." Parents and former students were asked to indicate whether or not the student "usually" performed the task. The percentages shown for the current students are the totals of "always" and "sometimes" answers. Percentages for parents and former students are those who indicated the students "usually" performed the tasks.

[a] Difference between males and females not significant at .05 level.

[b] Difference between males and females significant at .05 level. Any difference not footnoted significant at the .01 level.

[c] These base numbers are averages because some respondents did not answer certain items. Range of Ns for females 111 to 116; range for males 122 to 136.

TABLE 4-5

Toy Index Scores of Current Students
by Sex and Traditional/Nontraditional Enrollment

Toy Index Score[a]	Females		Males	
	Non-traditional	Traditional	Non-traditional	Traditional
	%	%	%	%
5 or less	30	39	-	-
6 to 10	23	29	-	-
11 to 15	21	12	-	-
16 to 20	14	13	2	2
21 to 25	6	5	8	2
26 to 30	5	2	8	20
31 to 35	-	-	38	28
36 to 40	3	-	28	33
41 or more	-	-	16	17
Base Number	146	118	50	137

[a] Low scores indicate the respondent played mainly with traditional female toys; high scores indicate the respondent played mainly with traditional male toys.

TABLE 4-6

Factor Scores for Female and Male Tasks Usually Performed by Current Students by Sex and Traditional/Nontraditional Enrollment

Factor Scores[a]	Female Tasks				Male Tasks			
	Female		Male		Female		Male	
	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%	%	%	%	%
30 or less	-	-	2	2	1	-	-	-
31 to 40	1	3	26	39	23	23	2	1
41 to 50	38	30	43	45	44	50	20	28
51 to 60	38	49	26	14	31	23	63	57
61 to 70	20	16	-	1	1	3	14	13
71 or more	2	3	2	-	1	-	-	2
Base Number	146	116	49	137	146	116	49	137

[a] Low scores for each of the tasks indicate the respondents rarely performed them; high scores indicate they often performed them.

choices with their children, and whether their children ever wanted to take courses that the parents objected to. In most cases there was little evidence that the nontraditional students were exposed to any different influences than traditional students. Parents of nontraditional females, however, were more aware of the occupational interests of their daughters than were their traditional counterparts. The nontraditional parents were more likely to report that they had tried to influence their daughter's interests by providing appropriate toy kits and books (although this was not reflected in the toys analysis above); and they were more aware that their daughters had considered and were preparing for occupations that were unusual for their sex. There was also some indication (at .08 level of significance) that the nontraditional parents were more supportive of their daughter's choices. These findings, together with the nontraditional females' parents' tendency to support equal opportunities for women, suggest that students are more likely to choose nontraditional courses when their parents encourage such choices.

Most parents were satisfied (43 percent) or very satisfied (45 percent) with the occupational choices of their children, regardless of the curricula in which they were enrolled. There were no significant differences in satisfaction between parents of traditional and nontraditional students.

School and Peer Influences

When children enter school, they become subject to a host of potential influences on their attitudes and behavior in addition to those of the family environment discussed in the previous section. This section examines school and peer influences as they relate to the student's choice of a vocational program.

Guidance Activities

The students in the sample were provided with a list of experiences which could have influenced the choice of a course of study in high school. Students were asked first to indicate whether they had had any of the experiences listed. If they had, they were asked to rate the experience on a five point scale according to how helpful it had been in their vocational course selection in order to discover whether the nontraditional students had been exposed to different kinds of experiences and/or whether they viewed any of these experiences as being more helpful in making their course choices than did the traditional students.

The questionnaire listed three kinds of experiences as possible influences on course choice:

1. Those provided by the school (particularly by the guidance departments); e.g., careers courses, vocational interest tests, vocational aptitude tests, guidance or library materials on occupations, special programs or activities.

2. Influence of others on the student's choice; e.g., students, parents, relatives, teachers, and counselors.

3. Personal activities; e.g., summer or part-time jobs, hobbies, or leisure-time activities.

Because of the difficulty of presenting all of these data on a single table, the percentages of students who simply indicated they had had such experiences are provided first. These are grouped in Table 4-7 according to the three categories listed above. Statistical tests were performed (chi-square) to determine whether the traditional students differed significantly from the nontraditional students on any of these items.

Significant differences existed between the nontraditional and traditional females on two items: traditional females were more likely to have held part-time or summer jobs that influenced their choices ($p < .01$), and traditional females were more likely than nontraditional females to have had hobbies or other leisure time activities that were influential ($p < .001$).

Traditional males were more likely to report having taken a vocational interest test ($p < .01$) or a vocational aptitude test ($p < .05$) than nontraditional males. A larger proportion of nontraditional males indicated that they had discussed their course choice with teachers ($p < .02$), and a larger proportion of nontraditional than traditional males had held part-time or summer jobs that influenced their choices ($p < .05$).

It might be expected that because of the high teenage unemployment rate, nontraditional summer or part-time jobs would have been difficult to obtain for both sexes. Yet 66 percent of the nontraditional males claimed to have had job experiences which influenced their course choices. A possible explanation is that they worked at traditional jobs which triggered or reinforced their desire to try a nontraditional program. The available data are not sufficiently specific to test this hypothesis. Overall, however, more males in the sample had had employment experience than females.

The sample students were asked to provide some specific details about their work experience--number of regular, part-time, or summer

TABLE 4-7

Experiences Reported as Influencing the Vocational Course Choices of Current Students, by Sex and Traditional/Nontraditional Enrollment

Experiences	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%[a]	%	%	%
School-initiated				
Read guidance/library materials on careers	71	76	77	65
Program/activities which describe courses of study	68	62	71	62
Took vocational interest test	53	59	49[b]	70
Took vocational aptitude test	53	62	45[b]	63
Took course on careers	31	47	43	41
Personal Discussions				
With other students	90	93	82	85
With parents	89	90	82	86
With siblings or other relatives	71	70	67	65
With counselors	60	57	69	63
With teachers	56	64	80[b]	60
Individual Activities				
Hobbies or other leisure time activities	55[b]	75	69	68
Part-time or summer job	26[b]	41	66[b]	39
Base Number Range	142-144	116-118	48-49	131-134

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[a] These percentages do not sum to 100 percent. Each figure represents the percentage of all vocational students in the respective categories that reported experiencing the various items listed. Any one student could check all, some, or none of the experiences.

[b] Difference between nontraditional and traditional students of the same sex significant at the .05 level or less.

jobs and total months spent at such jobs. While more than 80 percent of the males had held jobs, only 65 percent of the females had (see Table 4-8). The number of jobs each group had held did not differ significantly either between the sexes (2.1 for females and 2.6 for males) or between traditional and nontraditional students within each sex.

These data provide no support for the notion that nontraditional students may have had a greater number of jobs encompassing a greater variety of tasks which might have increased the number of vocational course options which they perceived as appropriate. However, nontraditional males had worked for fourteen months on the average, while the traditional males had held jobs for a total of 6.5 months on the average. These differences are statistically significant ($p < .009$). The average number of months females had worked were 9.2 for the nontraditional and 8.1 for the traditional females (not statistically significant).

It can be seen from Table 4-7 that of the three types of influences listed, the students were most likely to cite those in Group 2--personal discussions with others concerning their course choices. Parents and other students were those most often consulted by all students. (That parents and other students are most often involved in students' course choices is supported by the responses to several other questions discussed below.)

As for the schools' efforts to provide the students with information to assist them in choosing their courses of study, approximately three-quarters of nontraditional students of both sexes reported that they read materials from the guidance department or library which described various occupations. Based on the responses to the counselors' interview guides, perusals of the libraries in the sample schools, and the findings of other studies (Birk, et al., 1973, Vetter, et al., 1974, cited in Chapter 2), however, it appears that guidance materials on people in nontraditional occupations are in short supply. How helpful, then, were the materials the nontraditional students read? (See Table 4-9.)

A majority of the students assessed these career materials as helpful, but less than 50 percent considered them to be quite or very helpful. What cannot be determined from the data is the nature of the helpfulness. Were they useful simply as descriptions of duties, salaries, training, etc. for various occupations? Were they useful in helping students to eliminate certain vocational options, thus narrowing the selection process? Did they provide pictures of role models of the nontraditional sex for these students?

TABLE 4-8

Reported Incidence of Part-time or Summer Jobs, Current Students by Sex and Traditional/Nontraditional Enrollment

	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Held job	65	64	88	81
Never held job	35	36	12	19
Base Number	146	118	50	137

TABLE 4-9

Helpfulness of Guidance or Library Materials Which Describe Occupations as Reported by All Current Students Who Had Used These Materials

	Females		Males	
Degree of Helpfulness	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Quite or very helpful	42	55	46	49
A little helpful	39	34	35	34
Not helpful	4	6	3	8
Don't know how helpful	10	5	8	8
No rating of helpfulness[a]	6	2	8	1
Base Number	103	90	37	86

[a] This category consists of those respondents who indicated they had read occupational information material but did not rate its helpfulness.

TABLE 4-10

Helpfulness of School Programs/Activities About Courses as Reported by All Current Students Who Indicated Their Schools Offered Such Activities

Degree of Helpfulness	Females		Males	
	Non-traditional	Traditional	Non-traditional	Traditional
	%	%	%	%
Quite or very helpful	48	48	54	39
A little helpful	34	27	31	30
Not helpful	5	5	3	7
Don't know	7	15	3	17
No rating of helpfulness[a]	5	1	8	7
Base Number	97	73	35	83

[a] This category consists of students who reported their school conducted programs but who did not rate the helpfulness of these programs.

TABLE 4-11

People Who Influenced Vocational Course Choices of Current Students, by Sex and Traditional/Nontraditional Enrollment

Source	Suggested Course				Had Most Influence			
	Females		Males		Females		Males	
	Non-traditional	Traditional	Non-traditional	Traditional	Non-traditional	Traditional	Non-traditional	Traditional
	%[a]	%	%	%	%	%	%	%
No one	56	54	56	53	54	41	47	46
Parent	21	29	20	26	19	19	18	24
Counselor	15	22	16	14	4	13	0	7
Another student	14	20	16	21	7	7	16	7
Sibling or other relative	12	13	8	12	5	9	12	6
Teacher	10[b]	19	14	15	9	10	4	9
Other	5	3	6	4	2	2	2	1
Base Number	146	118	50	137	144	118	49	135

[a] These percentages do not sum to 100 percent. Each figure represents the percentage of all vocational students in the respective categories that reported receiving suggestions from the people listed. Any one student could check all, some, or none of the choices.

[b] Difference between nontraditional and traditional females significant at the .04 level or less.

Between 60 and 70 percent of all the students indicated that their schools conducted programs or activities designed to introduce them to different courses of study. Further information on these programs and activities was provided by the counselor interviews conducted at each of the sample schools. Counselor responses are discussed in greater detail in Chapter 6, but in brief, they indicated that such programs and activities usually took the form of tours of area vocational schools by prospective students and/or career fairs to which outside resource people were invited. The students' ratings of the degree of helpfulness of such school activities are shown in Table 4-10.

Less than half of the students rated the programs or activities which the schools conducted as quite or very helpful. Those who found these programs or activities to be most helpful were the nontraditional males, although only 54 percent of them gave the two highest ratings. This suggests that schools should make a greater effort to acquaint students with the various courses of study which are offered.

As for courses about careers, less than half of all the students in the sample had been exposed to one. By group, the percentages ranged from a low of 31 percent for nontraditional females to a high of 47 percent for traditional females.

People Who Influenced Students in their Program Selection

The students were asked to indicate all of those people who suggested that they take the course of study they were following as well as the one person who had the most influence on their choice. Responses to these questions are shown in Table 4-11.

At least 50 percent of each group indicated that no one suggested they take the vocational program in which they were enrolled, and less than one-quarter indicated having received the suggestion from their guidance counselors. For all four groups, the most frequent source of suggestions about programs was parents. This indicates the need to educate parents to the variety of vocational options which should be available for their children.

The data which identify the most influential persons are similar to those which identify people who suggested the program to the students. For approximately half of the students in the sample, their own perceptions and desires played the major role in their course selection. This was most dramatically the case for nontraditional females, lending support to the frequently stated notion that females are not informed about or encouraged to enter nontraditional fields. There are no statistically significant differences between traditional and nontraditional students for either sex on this question. Again, the responses indicate that, after themselves, the students' parents had the most influence on their choices, although for nontraditional males, other students appeared to have been almost as influential as their parents; and among traditional females, the counselors came in a close third. The latter finding supports the notion that counselors are likely to reinforce traditional female occupational orientation.

Reported Reasons for Students' Program Choice

The respondents were asked to identify the most important reason for choosing the courses of study in which they were currently enrolled. Based on the results of earlier studies of vocational students (Kaufman et al., 1967; Eninger, 1965)[1], it was hypothesized that the two most popular responses to this question would be "to prepare for employment" and "to study things of personal interest." For three of the four groups--nontraditional females, traditional females, and nontraditional males--these were the most frequently cited reasons, accounting for at least 50 percent of the responses in each group (see Table 4-12). Among nontraditional males, "to prepare for more education" was selected more often than personal interest or employment. For both traditional groups, however--females and males--"interest" was cited more often than "employment." That more than one-third of the students chose their particular courses of study because of personal interest suggests that they may not view the vocational programs as providing specific job training skills.

Nontraditional females were more likely to have employment in mind when choosing their vocational courses than traditional females (33 percent versus 20 percent). In fact, a higher proportion of nontraditional females indicated that they selected their courses to prepare for employment than any of the other three groups. A comparison of the proportion of nontraditional and traditional females who selected employment versus interest versus all other choices revealed a statistically significant difference ($p < .05$). In other words, the nontraditional females in the sample differed from the traditional females in the reasons they gave for their vocational course selection. Perhaps the nontraditional females had a more realistic view of their future lives than the traditional females, i.e., they perceived the need for a vocation, and they selected traditional male courses because they recognized the low-paying, dead-end nature of many traditional female occupations. This cannot be proven with the available data. It can be hypothesized, however, that as more females realize that they are likely to work outside the home for an average of twenty to twenty-five years, they may begin to explore the multitude of career options available. Such exploration should lead to increased enrollments of females in nontraditional vocational programs.

When the responses of former students (Table 4-13) are compared to those of current students, it can be seen that greater proportions of all four groups of former students selected their courses as a result of

TABLE 4-12

Most Important Reason for Choosing Course of Study for Current Students by Sex and Traditional/Nontraditional Enrollment

Reasons	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Prepare for employment	33	20	22	27
Study things of personal interest	32	43	28	37
Prepare for college, business school, technical school, etc.	15	22	30	17
Followed suggestion of school	6	3	0	4
To have easy courses	1	1	6	2
To satisfy parents	1	0	2	1
To be in same classes with friends	0	2	0	3
Other	5	5	4	2
Don't know main reason	7	5	8	7
Base Number	145	116	50	135

TABLE 4-13

Most Important Reason for Choosing Course of Study for Former Students by Sex and Traditional/Nontraditional Enrollment

Reasons	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Study things of personal interest	52	43	24	40
Prepare for college, business school, technical school, etc.	19	21	28	18
Prepare for employment	10	23	14	22
Followed suggestion of school	6	5	7	6
To have easy courses	5	2	0	4
To be in same classes with friends	2	1	7	4
Other	0	1	3	0
Don't know main reason	6	4	14	6
Base Number	95	84	29	125

"personal interest" than for any other reason. Roughly the same percentages selected their courses of study to prepare for postsecondary vocational training. A significantly higher proportion of the current nontraditional students (both female and male) selected their courses of study to prepare for employment (10 percent of the former nontraditional females versus 33 percent of the current nontraditional females ($p < .001$); 14 percent of former nontraditional males versus 22 percent of current nontraditional males ($p < .05$). Whether these percentages have increased because current students believe that opportunities for employment in nontraditional fields are increasing can only be surmised. If true, however, this would be an encouraging sign of increased acceptance of nontraditional workers.

All students were asked if there were any other programs they would have preferred to take had they been available. For those who responded "yes" (32 percent of the nontraditional females, 31 percent of the traditional females, 32 percent of the nontraditional males, and 26 percent of the traditional males), the preferred course choices were examined. Because not all of the courses chosen by students could be classified as traditionally male or traditionally female, it was not possible to evaluate all of the students' preferred course options.

Among those courses that could be identified as traditional or nontraditional, however, approximately one-third of the female students who indicated that they would have preferred another course of study selected a course in the opposite category. In other words, one-third of the traditional females would have preferred a nontraditional course, and one-third of the nontraditional females would have preferred a traditional female course. Among the male students who would have preferred some other program, one-fifth of the nontraditional males apparently really wanted a traditional course. One-seventh of the traditional males would have preferred a traditional female course.

Perceived Acceptance of Students' Course Selections

Students were asked whether they encountered any resistance or criticism when they decided to take their present course of study. Those who answered "yes" were asked to indicate from whom (see Table 4-14).

Both nontraditional males and nontraditional females cited male friends as their most frequent critics. This is not surprising, since traditional males are the group most likely to feel threatened by changes in the occupational structure. Both groups challenge long-held assumptions about women's and men's roles in society. The traditional male, who dominates societal institutions, stands to lose the most power if sex stereotypes are broken down and roles in society reordered.

TABLE 4-14

Resistance or Criticism Reported Because of Vocational Course Choice by Current Vocational Students, by Sex and Traditional/Nontraditional Enrollment

Sources of Resistance or Criticism	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%[a]	%	%	%
Male friends	12	6	22[b]	6
Female friends	10	15	6	4
Parents	7	3	0	7
Counselors	6	3	0	3
Sibling or other relatives	3	6	6	2
Teachers	1	5	4	4
Encountered NO resistance or criticism	77	76	76	82
Base Number	146	118	50	137

[a] These percentages do not sum to 100 percent. Each figure except for the final one represents the percentage of all vocational students in the respective categories that reported encountering resistance or criticism from the sources listed. Any one student could check all, some, or none of these sources.

[b] Difference between nontraditional and traditional males significant at the .003 level.

The data in Table 4-14 conform to expectations about the importance of peer pressure and are further supported by responses to the question, "Were you ever teased by the other students because of the course of study you chose?" Thirty-two percent of the nontraditional males and 30 percent of the nontraditional females responded "yes," as opposed to only 19 percent of the traditional males and 20 percent of the traditional females. These differences, while in the expected direction, did not quite reach statistical significance at the .05 level.

The students reported overwhelming parental satisfaction with their program choices. Over 80 percent of all groups thought their parents were satisfied or very satisfied with their choice of a course of study.

Nontraditional Job Aspirations

The students were asked if they had ever thought seriously about entering occupations that were not traditional for their sex. A significantly larger percentage of the females (both nontraditional and traditional) reported considering nontraditional occupations than did either group of males (see Table 4-15). It is somewhat puzzling that larger percentages of nontraditional students did not respond positively to this question. Perhaps they (particularly the males) were unaware that their vocational programs were nontraditional. This may have occurred partly because the examples provided in the questionnaire were very "hardcore," such as a female becoming an auto mechanic or a male becoming a secretary. In addition, several studies of vocational students have found low relatedness between the high school programs taken and the types of jobs the students obtained.[2] The data for former students in this study, for example, revealed that only one-third or less of the respondents in the four groups found jobs that were the same or highly related to the skills they studied in high school (see Chapter 8).

It cannot be determined whether these students sought highly related jobs and simply ended up with something else, or whether they did not view their vocational programs as providing specific job training skills. Some support for the latter view can be found in the high proportions of the current students who selected their vocational programs "to study things of personal interest" rather than "to prepare for employment" (see Table 4-12 above). It must also be remembered that a number of the students were not enrolled in their first-choice vocational programs. An examination of the nontraditional occupations which the students had considered revealed no significant differences between those enrolled in nontraditional and traditional programs among either the females or the males.

Those who had considered a nontraditional occupation were asked whether they had ever discussed with anyone the possibility of such an occupational choice. Their responses are shown in Table 4-16.

While there were no significant differences between the two groups of males, the females currently enrolled in nontraditional vocational programs were more likely than the traditional females to have discussed the possibility of a nontraditional occupation, and the discussants were more likely to have been other students and counselors.

Multiple Regression Analysis

With so many possible influences on the decision to enter a nontraditional program, multiple regression analyses were conducted to test which variables were significant when the effects of others were held constant. Several preliminary equations--which included information about the students, their family backgrounds, and their schools--were constructed and analyzed. Since the definitions of nontraditional courses differed for males and females, the analyses were conducted separately for each sex. Separate analyses were also conducted for current and former students.

Multiple regression is a powerful analytic tool which allows the independent effect of each variable to be tested while the influence of all others is held constant. However, because this technique tests all possible combinations of the variables until it finds the weighting that explains the maximum proportion of the variability in the dependent variable (in this case, enrollment in a nontraditional program), it is also highly likely to capitalize on chance relationships among the variables. For this reason, relationships that are found to be significant must be interpreted cautiously unless they fit into an established theoretical framework or are based on very large samples. In the present analyses neither the theory nor the large samples were available. The reasons for nontraditional program choice have not been theoretically explored, and the number of respondents in the separate samples is relatively low. Furthermore, when the dependent variable is a dichotomous one, multiple regression tends to underestimate relationships.

For all of these reasons, the multiple regression analysis presented here is a very conservative one. Tables 4-17 and 4-18 contain the results for current and former male and female students for whom complete data were available. Respondents who had missing data on the variables listed in the tables were dropped from the analysis. The variables reported in these tables are those for which at least one of the preliminary analyses had found a significant relationship with the traditional/nontraditional classification.

TABLE 4-15

Percentage of Current Students Who Seriously Considered Entering a Nontraditional Occupation, by Sex and Traditional/Nontraditional Enrollment

	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Yes	52	43	18	9
No	48	57	82	91
Base Number	146	118	50	137

TABLE 4-16

Reported Discussion of Possible Nontraditional Occupations, Current Students by Sex and Traditional/Nontraditional Enrollment

Discussants	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Considered NT occupation but never discussed it with anyone	25[b]	53	60	53
Discussed with someone:	75	47	40	47
another student	49[ab]	30	33	20
parent	49	33	33	33
brother, sister, other relative	28	26	33	27
teacher	28	14	33	13
counselor	24[b]	7	20	13
other	4	4	0	6
Base Number	75	57	10	15

[a] These percentages do not sum to 100 percent. Each figure represents the percentage of all students in the respective categories that considered a nontraditional occupation and reported discussing the occupation with the people listed. Any one student could check all, some, or none of these people.

[b] Difference between traditional and nontraditional females significant at the .05 level or less.

TABLE 4-17

Multiple Regression Analysis of Influences on Choice of Nontraditional Curriculum, Current and Former Female Students

Independent Variables with Coding for Equation	Current Female Students					Former Female Students				
	Mean	SD[a]	r	B	SE	Mean	SD	r	B	SE
Father's Occupation										
Professional, technical, managerial = 1, others = 0	.31	.46	-.09	.23*	.11	.44	.50	.17	-.02	.11
Sales, clerical, skilled worker = 1, others = 0	.32	.47	.09	.24*	.11	.19	.39	-.10	-.23	.13
Semi-skilled, protective, service = 1, others = 0	.23	.42	.15	.39**	.11	.21	.41	-.14	-.18	.13
All others = 0 (enters intercept)				I					I	
Mother's years of work (7 point scale)	2.31	2.23	-.08	NE		2.43	2.37	-.19	NE	
Father's education (8 point scale)	4.42	1.69	-.04	.02	.02	4.60	1.88	.30	.05*	.02
Mother's education (8 point scale)	4.41	1.62	-.02	NE		4.43	1.40	.19	NE	
Comprehensive or vocational school (comp = 1, voc = 0)	.80	.40	-.37	-.45**	.08	.91	.29	-.23	-.45**	.14
School location (urban = 1, others = 0)	.49	.50	-.08	-.11	.07	.52	.50	-.13	NE	
Female tasks (factor score current,	53.59	7.63	.03	NE		11.49	6.38	.24	.01	.01
School satisfaction % based index former)	49.60	8.86	-.07	NE		3.51	1.09	-.05	-.04	.03
Male-female toys (% based index)	9.48	7.14	.20	.01*	.00	10.74	7.55	.20	.01	.01
Dependent variable, nontraditional enrollment	.57	.50				.57	.50			
Intercept				.74	.44				.79	.45
Multiple $\bar{R}^b$			.45**					.42**		
Explained variance $(\bar{R}^2)^b$			.20					.17		
Number of observations			189					149		

[a] SD = standard deviation of mean, r = zero order correlation of independent with dependent variables, B = net regression coefficient, SE = standard error of coefficient, I = values enter intercept term; NE = not entered, F value for coefficient < 1.00.

[b] Corrected for degrees of freedom *significant at .05 level, ** significant at .01 level.

TABLE 4-18

Multiple Regression Analysis of Influences on Choice of Nontraditional Curriculum, Current and Former Male Students

Independent Variables with Coding for Equation	Current Male Students					Former Male Students				
	Mean	SD[a]	r	B	SE	Mean	SD	r	B	SE
Father's Occupation										
Professional, technical, managerial = 1, others = 0	.46	.50	-.12	-.25	.13	.40	.49	-.02	.09	.12
Sales, clerical, skilled worker = 1, others = 0	.28	.45	-.10	-.27	.14	.24	.43	.12	.16	.13
Semi-skilled, protective, service = 1, others = 0	.17	.38	.10	-.00	.15	.17	.38	-.12	-.08	.14
All others = 0 (enters intercept)				I					I	
Mother's years of work (7 point scale)	2.21	2.33	.02	NE		2.15	2.38	.07	NE	
Father's education (8 point scale)	4.62	1.97	.04	.02	.02	4.41	1.77	.16	.04	.03
Comprehensive or vocational school (comp = 1, voc = 0)	.79	.41	.31	.32**	.10	.94	.23	.14	NE	
School location (urban = 1, others = 0)	.26	.44	-.22	-.21*	.09	.43	.50	-.27	NE	
Color (white = 1, other = 0)	.79	.41	-.44	-.41**	.10	.90	.31	-.33	-.49**	.14
Attitude toward female career (factor score)	54.06	9.14	-.12	NE		53.29	7.43	-.16	-.01	.01
Attitude toward traditional female role (factor score)	50.44	7.47	-.11	-.01*	.00	51.47	7.67	.09	.01	.01
Male-female toys (% based index)	34.74	5.22	-.08	-NE		32.62	5.44	-.24	-.02*	.01
Dependent variable, nontraditional enrollment	.27	.44				.24	.43			
Intercept				1.02	.36				1.12	.39
Multiple $\bar{R}^b$ Explained variance			.59** .35					.44** .19		
Number of observations			112					87		

[a] Same as Table 4-17.

[b] Same as Table 4-17.

For the female students, it can be stated with considerable confidence that enrollment in a nontraditional program is associated with attending a vocational school. Which is the cause and which the effect cannot be determined. A student may wish to study a program which is offered only at a vocational school. If the student enrolls in the program purely because of interest in the skill, attendance at the vocational school is an effect of having chosen a nontraditional curriculum. If, instead, the student tours a vocational school, sees the opportunities available there, and hears good reports about the school from other students, she may choose a nontraditional program because it is conducted at that school. When informal interviews were conducted during the site visits, students frequently said that at the vocational school they "counted for something." They felt less likely to be judged on the basis of academic performance or social standing by other students or teachers than they did in their home schools. Thus, in most cases, the two influences probably interact. The atmosphere at the vocational school may combine with the interest of the student and the relative absence of peer pressure to yield the choice of a nontraditional program.

Whatever the direction of the influence, the vocational school would appear to have an advantage in recruiting females into nontraditional occupations. The usual arguments raised against separate vocational schools--e.g., that students do not like to leave their home schools--certainly do not apply to the nontraditional female. Vocational schools could capitalize on this inherent advantage in the recruitment of females into traditional male programs. Among the male students, race was the only significant variable for both current and former students. Nonwhites were more likely to be enrolled in nontraditional programs than whites. The only interpretation that can be made is that being nonwhite increases the probability that a male will enter a nontraditional program. Why this should be so is not clear either from the questionnaire data or other information gathered in the course of the study. One possible explanation is that administrators may be less likely to reject the requests of nonwhite males to enter traditionally female areas than they would those of white males. The site visits conducted for this study suggested that most administrators were far more sensitive to racial discrimination than they were to sex discrimination.

The male-female toy index was significant for two of the four analyses, and in all four the signs were in the expected directions, positive for females and negative for males. Other variables that were predicted to be influential, such as the education of the parents, the presence of a working mother, and an urban location, failed to yield any significant relationships or did so only once.

Thus, the data that this study was able to gather identified two factors that lie behind the decision to enter nontraditional programs. Females who do so are more likely to be in vocational schools; males who do so are more likely to be nonwhite. Factors other than these could not be clearly identified. In a sense, however, this lack of differences may be interpreted positively. It suggests that the decision to enter a nontraditional program is not the result of a number of forces over which neither the student nor the school has any control. On the contrary, efforts to widen career options for both sexes would appear to have considerable potential for success.

Future Plans

A number of questions were asked concerning the students' perceptions of their futures. They were asked to indicate their main plans after high school, what types of jobs they hoped to get, how many years they expected to hold full- or part-time jobs, whether or not they thought they would get married, how many years they would work after marriage, problems they expected to encounter in the world of work, and how much money they expected to be earning one and five years after completing their education. Very large percentages of the students checked "undecided, don't know, no idea" when replying to these questions. Their responses suggest a great degree of uncertainty about their future plans. As would be expected, the degree of uncertainty expressed about the future increased as the projected time period lengthened.

Students' Main Plans Following High School

Because the students in the sample were enrolled in vocational programs, it was assumed that most would plan either to work at full-time jobs or to take advanced training at vocational, technical, or business schools. In fact, the most frequent response for all groups but the traditional males was "attend college" (see Table 4-19). Only traditional males anticipated working full-time immediately after graduation, and only 10 to 16 percent of all the students in the sample expected to go immediately to advanced *vocational* training. Military service was a popular option only for nontraditional males (18 percent). This is an unexpected finding since the military--at least in the past--has been a symbol of traditionality. However, the military has also been viewed by some as a place for those who do not "fit" into traditional societal categories. Overall, the pattern of plans of the nontraditional males differed significantly from the plans of the traditional males ($p < .02$).

Approximately one-quarter of all the females expected to go directly to full-time jobs after graduation. Only 10 percent of nontraditional and 6 percent of traditional females anticipated becoming

TABLE 4-19

Reported Main Plans Following High School, Current Students by Sex and Traditional/Nontraditional Enrollment

Main Plans	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Attend college full-time	33	42	44[a]	29
Get full-time job	27	25	18	35
Attend vocational, technical, or business school full-time	11	16	10	11
Be a housewife	10	6	0	0
Go into military service	1	2	18	6
Other	1	0	0	1
Undecided, don't know	16	10	10	18
Base Number	146	118	50	137

[a] Difference between nontraditional and traditional males significant at the .01 level or less.

housewives right after high school.[3] (The question referred to "main [emphasis in original] plans for when you leave high school, not including part-time or summer plans"--see Appendix B-4, Question 63.) Between 10 and 18 percent of all the students (female and male) were undecided concerning their main plans, with the most indecision disclosed by nontraditional females and traditional males (16 and 18 percent respectively). The nontraditional females' indecision may reflect the conflicting pressures which they may experience as a function of women's changing roles. The indecision of traditional males may reflect their knowledge that their work lives are likely to be long and continuous, and that their choice of a vocation is not a decision to be made lightly.

If the traditional males were influenced by this consideration, however, it was not reflected in their estimates of their future working years. Over half of all the students were unable to estimate the number of years they would hold regular part-time or full-time jobs after they completed their education (see Table 4-20). The "no idea" responses ranged from 46 percent of the nontraditional males to 64 percent of the traditional females. The average man in the United States will work for forty-three years; the average woman for twenty to twenty-five years. Yet less than 20 percent of the males and females estimated their future working lives to be as long as the average for their sex.

Occupational Preference

The students were asked what kind of jobs they hoped to get after they finished their education (see Table 4-21). It can be seen that the students in the sample selected jobs which ranged across the occupational spectrum. However, there were significant differences in the types of jobs traditional and nontraditional students hoped to get. Nontraditional females were more likely to hope for jobs in the data-oriented professional and technical areas and less likely to want clerical jobs than were the traditional females. Almost 50 percent of the nontraditional females selected jobs in the professional and technical areas. Nontraditional males were more likely to want to be service workers and people-oriented professional or technical workers than the traditional males, who were more likely to be interested in skilled and semi-skilled work. Questions asked of the parents concerning the occupational preferences of their children yielded results that paralleled those obtained from the students.

The males in the sample were less certain of the types of jobs they hoped to get than were the females. In fact, the most frequently checked response of the traditional and nontraditional males was "undecided, don't know." This may be a function of the wider variety of vocational options which have been perceived as appropriate for males, combined with the males' expectations of longer working lives which may make them more conscious of the importance of selecting an occupation which will be compatible with their interests and skills. It may also be a function of an uncertain labor market.

TABLE 4-20

Estimated Length of Work Life of Current Students by Sex and Traditional/Nontraditional Enrollment

Number of Years	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
1 year or less	3	4	6	2
2-3 years	6	3	0	3
4-5 years	8	6	4	4
6-10 years	3	4	4	0
11-20 years	4	8	2	5
21-30 years	5	5	6	9
31-40 years	4	3	12	10
41+ years	10	3	20	12
No idea	57	64	46	56
Average number of years students estimated they would work	18	15	27	26
Base Number	146	118	50	135

TABLE 4-21

Current Students' Reports of Kind of Job They Hoped to Obtain After Finishing Their Education, by Sex and Traditional/Nontraditional Enrollment

Types of Jobs Planned	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Professional, technical (data oriented)	25[a]	8	22[a]	28
Professional, technical (people oriented)	21	22	10	4
Managers, officials, proprietors	2	4	6	7
Sales	2	0	2	0
Clerical	8	27	2	0
Skilled work	3	2	4	12
Semi-skilled	3	1	4	9
Service workers	7	8	12	6
Unskilled	.7	0	0	1
Farm Work	1	2	2	3
Undecided, don't know	25	25	36	36
Base Number	146	118	50	137

[a] Types of jobs desired by traditional and nontraditional current students differ significantly

Females chi square = 42.67 $p < .001$
Males chi square - 42.27 $p < .001$

The importance of role models was discussed earlier in this report (see Chapter 2). Sixty percent of all the students in the sample indicated that they personally knew someone who held the kind of job they hoped to get. These students were asked the sex of this role model. The responses are shown in Table 4-22. There is a statistically significant difference between the sex of the role models identified by the nontraditional and traditional females ($\underline{p} < .001$), and the results tend to confirm expectations. Very few of the traditional females had male role models, whereas the nontraditional females were almost equally divided in the sex of their role models. This may reflect the growing numbers of women in traditional male occupations, and it may indicate that many young women are able to pattern themselves on role models of either sex--something which is not reflected in the responses of the male students.

Very few male students--either traditional or nontraditional--knew personally any females who were performing in the student's chosen occupation, while two-thirds of the male students knew males who held such jobs. These results may be interpreted in several ways. Nontraditional males may not specify female role models because they are not, in fact, looking for nontraditional jobs. Or, nontraditional males may be more visible to young males than nontraditional females are to the female students. Perhaps communication is better among males, resulting in males' being able to find and identify with other males performing nontraditional jobs. Or, the results may reinforce the point made above that females find it easier to identify with adults of either sex, while males still find it extremely difficult to see females as role models for their occupational choices. The inability of males to use females as occupational role models has been noted in the literature.[4] This is not surprising, since men are usually not respected for wanting to be "like" a woman, no matter how accomplished she may be.

The students were also asked what relationship, if any, their role model had to them. The results are shown in Table 4-23 below. It can be seen that these models are most often friends for all four student groups. For all but the traditional females, the second most likely relationship of the role model to the student was professional. (It is assumed that the students interpreted 'professional' to mean anyone performing in an occupation).

Another question asked sample students what jobs they would like to have if they could do anything in the world of work. Their responses are shown in Table 4-24.

TABLE 4-22

Sex of Person Who Holds the Type of Job Current Students Hope to Get, by Sex of Students and Traditional/Nontraditional Enrollment

Sex of Role Models	Females		Males	
	Non-traditional	Traditional	Non-traditional	Traditional
	%	%	%	%
Female	31[a]	53	3	0
Male	28	8	64	65
Know no individual personally with desired job	41	39	33	35
Base Number	111	88	33	96

[a] Difference between nontraditional and traditional females significant at .001 level or less.

TABLE 4-23

Relationship of Role Models to Traditional/ Nontraditional Female and Male Current Students

Relationship	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Friend	50	44	46	56
Professional	15	16	29	16
Relative (not parent or sibling)	14	18	8	6
Brother, sister	10	10	4	4
Parent	4	3	4	11
Employer	3	5	4	4
Other	4	3	4	3
Base Number	72	61	24	70

TABLE 4-24

Type of Job Current Students Reported They Would Like to Have if They Could Do Anything in the World of Work, by Sex and Traditional/ Nontraditional Enrollment

Type of Job Desired	Females		Males	
	Non-traditional	Traditional	Non-traditional	Traditional
	%	%	%	%
Professional, technical (data oriented)	24[a]	23	16[a]	34
Professional, technical (people oriented)	27	21	24	13
Managers, officials, proprietors	5	6	8	9
Sales	0	0	0	0
Clerical	2	10	2	0
Skilled work	3	1	0	12
Semi-skilled	1	3	2	8
Service workers	4	4	12	5
Unskilled	0	0	2	0
Farm work	4	2	0	3
Don't know	30	30	34	16
Base Number	146	117	50	137

[a] Types of jobs desired by traditional and nontraditional current students differ significantly.

Females chi square = 24.33, $p < .06$
Males chi square = 31.45, $p < .01$

There is a statistically significant difference between the choices of the nontraditional and traditional students, both females and males ($p < .06$ for females, $p < .01$ for males). Of most interest, however, is the comparison of the types of jobs students actually expect to get (see Table 4-21) and the jobs they would select if they could do anything (see Table 4-24). A comparison of the responses to these two questions suggests that if students could do anything they liked,

1. Only one-third the number of females would choose to go into clerical work.

2. Only half as many females would select service work.

3. Slightly more students would choose to be managers, officials, and proprietors.

4. Except for the traditional males, almost none of the other students would select skilled work.

5. Two times as many of the traditional females would like to have data-oriented professional or technical jobs as plan to go into those areas.

6. Twice as many of the nontraditional males and three times as many of the traditional males would like people-oriented professional or technical jobs as expect to go into these areas.

These findings indicate that despite the increased emphasis on vocational-technical education at the secondary level, many of the students who have chosen this training aspire to occupations for which a college education is usually required.

Marital and Work Plans

Over three-fourths of all the students in the sample expected to marry someday. Approximately 20 percent of each group was undecided, while only 3 - 7 percent believed they would not marry.

The students were also asked to project the integration of their future work and marital lives. Although both females and males were asked this question, the responses reflect current societal expectations (see Table 4-25). There is a striking difference in the proportions of females and males who responded that they expect to work "all the time" after marriage (15 and 84 percent respectively).

TABLE 4-25

Current Students' Perceptions of Number of Years They Would Work After Marriage by Sex and Traditional/Nontraditional Enrollment

Number of Years	Females		Males	
	Non-traditional	Traditional	Non-traditional	Traditional
	%	%	%	%
Will not work after marriage	4	4	2	1
Will work until we have children	24	23	0	0
Will work until we have children and after children enter school	27	26	2	1
Will work all the time	17	12	81	86
Undecided, don't know	28	36	15	13
Base Number	136	110	48	117

Almost no males related the pattern of their work lives to their marital status, whereas approximately one-quarter of the females (both traditional and nontraditional) envisioned working only until marriage and/or until they had children. An additional one-quarter of the female students in the sample believed that they would not work while they had preschool children at home. Yet it is this very group of women--those with preschool children--who are entering the labor market at the fastest growing rate. (The labor force participation of mothers with preschool children rose from 22 percent in 1965 to 37 percent in 1975.) There seems to be a definite need to present young people with a more realistic view of their future work and living options.

Expected Problems and Earnings

A very important question in terms of the objectives of this study was "What kind of problems do you think you may have getting the kind of job you want?" The results are shown in Table 4-26 below. The nontraditional females anticipated encountering significantly more sex discrimination than did the traditional females ($\underline{p} < .04$).[5] For all four groups, however, the most frequently anticipated problem was competition with many others seeking the same job.

Perhaps most revealing was the frequency with which "don't know" was checked by all four groups. For all traditional students, as well as for the nontraditional males, this was the most popular response. This high degree of uncertainty affords further evidence of the need for students to develop a more realistic understanding of their future work lives, including problems they can expect to encounter. Awareness of potential problems should result in better preparation for handling them and increased likelihood of success in overcoming them. Both groups of nontraditional students were slightly more likely ($\underline{p} = .03$) than were the traditional students to indicate that they expected no problems. The analysis of the former students disclosed no significant differences in the problems the traditional and nontraditional groups encountered.

Many students were also unable to estimate the amount of money they would earn one year after completing their education. From 34 percent (of nontraditional males) to 59 percent (of traditional females) were unable to make a guess. The amounts estimated by nontraditional and traditional students or by males and females did not differ significantly. Females expected to earn on the average almost the same amount as their male cohorts--$164 per week for females, $176 per week for males. According to the most recent income statistics, however, men earn more money than women even when their educational level is the same (or higher for females), and the income gap between males and females is increasing rather than decreasing--partly as a result of the occupational differentiation noted earlier in this report (see Chapter 2).

TABLE 4-26

Problems Anticipated by Current Students in Securing Desired Job, by Sex and Traditional/Nontraditional Enrollment

Anticipated Problems	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%[a]	%	%	%
Many others seeking same job	27	22	14	25
May not be accepted by employers because of sex	14[b]	5	4	2
May not be able to pay for additional education, training	13	6	12	15
May not be able to meet requirement such as grades, test scores, etc.	12	15	14	10
May have to leave this area	9	7	10	8
May not be able to pay for necessary tools, equipment	3	8	4	6
Other	1	0	1	2
Expect no problems	18	15	18	12
Don't know	24	31	20	32
Base Number	146	118	50	137

[a] These percentages do not sum to 100 percent. Each figure represents the percentage of all vocational students in the respective categories that reported anticipating the problem listed. Any one student could check all, some, or none.

[b] Difference between nontraditional and traditional females significant at the .04 level or less.

When the projected earnings for five years hence were examined, even larger proportions of the students could make no estimate (from 44 percent of nontraditional males to 71 percent of traditional females). A comparison of the percentages of males and females who could make no estimate revealed a statistically significant difference ($p < .02$). Some of the traditional females probably could not make an estimate because they did not anticipate being in the work force five years after graduation. Again, no statistically significant differences obtained between the estimates made by nontraditional and traditional students, male or female. Males projected average weekly earnings of $262; females, $249. Many more males, however, estimated that their weekly pay would be over $340 than did females (33 percent versus 21 percent), with more of the nontraditional males anticipating being in this income bracket than any of the other three groups. This is somewhat inconsistent with the overall level of the job aspirations of the various groups (see Table 4-21 above).

Summary

This chapter has examined the responses of the current students and their parents to the questions in the survey designed to identify influences on the choice of a nontraditional vocational curriculum, including family background, school and peer influences, and future plans.

Family Background

Male students and their parents were less in favor of equal opportunity for women than females and their parents were. The parents of nontraditional females were more supportive of equal opportunity than parents of other groups. Students and parents tended to share the same attitudes toward sex roles. Most toys and tasks that the students were exposed to as children were clearly labeled "male" and "female" in their own and their parents' minds. The sex-role training these experiences provide, however, does not appear to influence students' decisions to enter nontraditional vocational programs. Parents did not appear to exert strong influence on their children's career choices. Parents of nontraditional females reported having tried to influence their children by giving appropriate toys and books, although this is not reflected in comparisons of student/parent reports of toys the students played with as young children. Most parents were satisfied with their child's education, whether traditional or nontraditional. Parents of nontraditional females did, however, appear to be more aware of their daughters' career choices.

School and Peer Influences

Between 60 and 70 percent of all the students indicated that their schools conducted programs or activities designed to describe different courses of study. Less than half of the students believed that these programs or activities were more than a little helpful (rated on a scale from "not helpful" to "greatly helpful"). Less than half of all the students in the group had been exposed to a course about careers.

Over 50 percent of all the students claimed that no one suggested their particular course of study, and an almost equal percentage claimed that they themselves were most influential in determining their vocational course choice. For those who did report some other influence, parents were most frequently named. School personnel--teachers and counselors--apparently exerted little influence on the course selection of the students in the sample, with the exception of the traditional females.

Among the more interesting findings was that nontraditional females were more likely to have had employment in mind when they chose their vocational program than did any of the other groups. Approximately one-quarter of the students in each group perceived some resistance or criticism as a result of their vocational course choice. Both nontraditional females and nontraditional males cited male friends as critics more often than anyone else (22 percent of nontraditional males, 12 percent of nontraditional females). More nontraditional students perceived resistance from their parents than traditional students did, but the percentages were small and not significant--generally the students perceived overwhelming parental satisfaction with their program choices. About one of every three students in the sample was not enrolled in the vocational program which was his or her first choice.

Approximately half of all the females in the sample had seriously considered entering an occupation which was nontraditional for their sex. Only 18 percent of the nontraditional males and 9 percent of the traditional males had done so. Of those students who had considered a nontraditional occupation, one-quarter to one-half had never discussed the possibility with anyone. Of those who did talk it over, the discussants were most likely to be other students and parents.

Multiple Regression Analysis

A multiple regression analysis was performed in an effort to determine the relative importance of the many possible influences on choice of a vocational program. As a result, it was discovered that female students are more likely to be enrolled in nontraditional programs in vocational, rather than comprehensive high schools, and that nontraditional male students are more likely to be nonwhite than white. Most of the other variables failed to yield any significant relationships.

Future Plans

Significant differences were found between the plans of the nontraditional and traditional males, with a considerably higher proportion of traditional males planning to go directly to full-time jobs after being graduated from high school. The nontraditional males were more likely to plan further education. Only 10 and 6 percent of the nontraditional and traditional females planned to become housewives immediately following high school.

Nontraditional females were more likely to hope for jobs in the data-oriented professional and technical areas and less likely to desire clerical jobs than were the traditional females. The nontraditional males were more likely to want to be service workers and people-oriented professional and technical workers than the traditional males, who were more likely to be interested in skilled or semi-skilled work. However, the most frequently checked response for all males was "undecided, don't know."

Between 46 and 64 percent of the students were unable to estimate the length of their future work lives. Of those who did make an estimate, very few had a realistic idea about the average number of years men and women work in the United States. Only 20 percent of the nontraditional males and females estimated within the average range. Even fewer of the traditional students made a correct guess.

Striking differences could be seen in the responses of the females and males when asked about the future integration of their work and marital lives. Only seventeen and 12 percent of the nontraditional and traditional females claimed they expected to work "all the time" after marriage, as opposed to 81 and 86 percent of the nontraditional and traditional males.

Despite the documented income gap between the sexes, male and female students in the sample estimated they would earn approximately equal amounts of money both one and five years after completion of their education.

The students were asked what kinds of problems they expected to have in obtaining the kinds of jobs they wanted. There was a statistically significant difference between the responses of the nontraditional and traditional females on the item "may not be accepted by employers because of sex." The most often anticipated problem for all four groups, however, was competition for jobs.

The data examined in this chapter reveal a few significant differences between vocational students in traditional and nontraditional programs but do not suggest overwhelming disparities between the two in terms of upbringing, background, or attitudes. It appears that many students could benefit from an effort on the part of the schools to broaden the range of choices available to all students.

FOOTNOTES

[1] Max U. Eninger, *The Process and Product of T&I High School and Vocational Education in the United States* (Pittsburgh, Pennsylvania: American Institutes for Research, 1965) Chapter 5, p. 16; and Jacob J. Kaufman, *et al.*, *The Role of the Secondary Schools in the Preparation of Youth for Employment* (University Park, Pennsylvania: The Pennsylvania State University, Institute for Research on Human Resources, 1967), Chapter 6, p. 37.

[2] Eninger, *op. cit.*, Kaufman, *et al.*, *op. cit.*, and *Pennsylvania Vocational Education Management Information Directory*, Bureau of Vocational, Technical, and Continuing Education (Harrisburg, Pennsylvania, 1974).

[3] Had the term homemakers been used instead of housewives, males might have been more likely to consider this option, although it is assumed that (because of the current societal expectations) even with the nonsexist term, few males would have checked it.

[4] See, for example, Ruth E. Hartley, "Sex-Role Pressures and the Socialization of the Male Child," in *And Jill Came Tumbling After: Sexism in American Education*, J. Stacey, S. Bereaud, and J. Daniels, eds. (Dell Publishing Co., New York, 1974), pp. 185-198; Eleanor Maccoby and Carol Jacklin, *The Psychology of Sex Differences* (Stanford, California, Stanford University Press, 1974), pp. 284, 286.

[5] Former students indicated that they actually encountered fewer problems with sex discrimination than might have been anticipated (4 percent). See Table 8-5, Chapter 8.

CHAPTER 5

SCHOOL EXPERIENCES AND ATTITUDES

Introduction

When young people enter nontraditional programs, how are their school experiences affected? Do they have more problems in their courses than traditional students? How are they treated by their teachers and classmates? Do they have less time to participate in extracurricular activities? How satisfied are they with their education?

To some of our questions, the nontraditional females, but not the nontraditional males, replied that their experiences differed from those of traditional students. The nontraditional females, for example, were more likely to have difficulties in their courses because they lacked background in the area, and they experienced less encouragement from their teachers. Despite these and other differences reported in this chapter, however, nontraditional females were not less satisfied with their education than any of the other groups.

The Courses

If the informal education of being raised as a boy or girl--the socialization process--produces differences in interests and abilities, it seems likely that these would be reflected in the experiences that young men and women have in vocational courses. That is, a young man who engages in typical male activities while growing up would probably know a little more about the use of hand tools or the parts of a car than the average young woman. Conversely, the typical young woman would probably know more about cooking or cosmetology than the average young man. When these students enter nontraditional programs--the female into carpentry, the male into cosmetology--they may be at a relative disadvantage compared to their traditional classmates.

To test for differences in the educational experiences of traditional and nontraditional students, all students were asked a number of questions about the courses they were taking. Students were confronted with a list of problems they may have encountered in their courses and asked to check each one they had actually experienced (see Table 5-1).

TABLE 5-1

Problems Reported by Current Students in Vocational Courses by Sex and Traditional/Nontraditional Enrollment

Problems	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%[a]	%	%	%
Interpersonal				
Attitude of other students	13	8	21	20
Treated differently from other students	7	1	9	3
Attitude of teachers	5	13	15	5
Subject-Related				
Lack of background in area	22[b]	8	15	17
Course material boring	12	11	15	11
Difficult subject matter	10	16	9	9
Too much work required	6[b]	16	15[c]	2
Not learning anything	1	1	6	3
Other	4	2	9	4
No Problems Reported	53	59	48	53
Base Number	96	83	33	109

[a] These percentages do not sum to 100 percent. Each figure represents the percentage of all vocational students in the respective categories that reported encountering the problem listed. Any one student could check all, some, or none of the problems.

[b] Difference between nontraditional and traditional students of the same sex significant at the .05 level or less.

[c] Expected cell frequencies too low to calculate reliable chi square.

A little less than half of the current vocational students (46 percent) reported having problems or difficulties in their courses. Traditional and nontraditional students reported significantly different experiences in only two instances, both for females: lack of background in area (22 percent of the nontraditional versus 8 percent of the traditional females cited this as a handicap), and "too much work required" (6 percent of the nontraditional females versus 16 percent of the traditional females chose this response). That nontraditional females cited their "lack of background in the area" as a problem supports the socialization hypothesis presented above. If the females had been enrolled in more "hard core" male courses (such as construction trades or auto mechanics), it is likely that the relative disadvantage they experienced would have been even larger.

The most frequently cited problem among the males (both traditional and nontraditional), was other students' attitudes, but on no item was there a statistically significant difference between the responses of the traditional and nontraditional males.

It appears that both male and female students in traditional female courses perceived the amount of work required as a problem ($p < .01$), although the same students felt that the traditional female programs contained less difficult material than other courses (see Table 5-3 below). These responses suggest that the quantity of material being presented outweighs its quality.

When the current and former students' responses are compared, it can be seen that the former female students seemed to encounter more interpersonal problems than did current female students (see Table 5-2). Current nontraditional females perceived their enrollments as being more acceptable to their teachers than did former nontraditional female students. The difference is not significant at the 5 percent level, but it might reflect the beginning of a trend toward more acceptance of nontraditional enrollments. The proportions of nontraditional female current students who reported course-related problems, however, are greater on every item than those of former nontraditional females. Thus, while interpersonal problems seem to be decreasing, course-related problems may be increasing for nontraditional females.

As for nontraditional males, the current students were less likely to perceive that they were being treated differently from the other students in their classes than were the former nontraditional male students (9 percent versus 16 percent). In addition, more former nontraditional males found their course material boring than did present nontraditional male students (32 percent versus 15 percent). Unfortunately, the low frequencies involved in these comparisons prevented the calculation of chi square values to test their significance.

TABLE 5-2

Problems Reported by Former Students in Vocational Courses by Sex and Traditional/Nontraditional Enrollment

Problems	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%[a]	%	%	%
Interpersonal				
Attitude of other students	15	11	16	11
Attitude of teachers	13	13	16	14
Treated differently from other students	6	4	16	4
Subject matter				
Lack of background	13	4	16	8
Course material boring	7	14	32[b]	9
Difficult subject matter	6	10	5	2
Too much work required	4	3	0	2
Did not learn anything	0	8	5	3
Other	11	4	0	7
Base Number	54	72	19	92

[a] These percentages do not sum to 100 percent. Each figure represents the percentage of all vocational students in the respective categories that reported encountering the problems listed. Any one student could check all, some, or none of the problems.

[b] Difference between nontraditional and traditional males significant at the .05 level or less.

Responses to the question, "How difficult is it to understand the material covered in these courses?" revealed a statistically significant difference between nontraditional and traditional females ($p < .01$). More nontraditional females believed their courses to be "a little hard to understand" than did traditional females. The reverse pattern was true among the males: nontraditional males found their course material somewhat easier to understand than did traditional males, but those differences were not statistically significant (Table 5-3). These results, together with those on problems encountered, suggest that among nontraditional students, the males have an easier time with the material being covered.

None of the students--traditional or nontraditional--thought the material was "very hard to understand"; very few even found it "hard." It does not appear that vocational students in the sample are being challenged to their fullest abilities.

There were indications that the traditional male programs required more time. The differences reported were consistent whether the students were of the traditional or nontraditional sex for the course. The most time was spent in the traditional male classes--58 percent of both nontraditional females and traditional males reported that they spent thirteen or more hours per week in these courses. In the traditional female courses, only 29 percent of the females and 47 percent of the nontraditional males reported spending that much time.

Attitudes of Teachers and Classmates

Teachers obviously have a major influence on how accepted nontraditional students feel in their classes. If the teacher resists or ignores nontraditional students, or treats them 'differently,' the chances of the students' withdrawing from the program are increased. When the current students were asked how much their teachers encouraged them, no significant differences emerged from the data between nontraditional and traditional males. Among the female respondents, however, the differences were statistically significant ($p = .05$). Twenty percent of the nontraditional females perceived their teachers to be neutral rather than encouraging, as compared to 8 percent of the traditional females. These responses suggest that while vocational teachers do not openly discourage their nontraditional female students, they withhold overt encouragement, an unsurprising reaction if a teacher has mixed feelings about the appropriateness of nontraditional females in his or her class.

TABLE 5-3

Degree of Difficulty of Material Covered in Vocational Courses as Reported by Current Students by Sex and Traditional/Nontraditional Enrollment

Degree of Difficulty	Females: Nontraditional	Females: Traditional	Males: Nontraditional	Males: Traditional
	%	%	%	%
Very easy to understand	13[a]	26	26	26
Easy to understand	39	48	47	38
A little hard to understand	46	25	24	32
Hard to understand	2	0	3	4
Base Number	102	87	34	112

[a] Difference between nontraditional and traditional females significant at the .01 level or less.

In light of the literature which indicates the importance of peer pressure, the students were asked how friendly the other students in their vocational courses seemed to them. Only one respondent (a traditional male) perceived his classmates to be "very unfriendly." The remaining 334 students chose either "very friendly," "friendly," or "neutral" (see Table 5-4).

There is probably a fine line to be drawn between the ratings "friendly" and "very friendly," but a significantly higher proportion of traditional females thought their classmates were very friendly than nontraditional females (52 percent versus 38 percent). This may reflect the fact that traditional females rated mostly other females while the nontraditional females rated mostly male classmates.

Among the male students, almost twice as many nontraditional males perceived their classmates to be neutral toward them (21 percent versus 11 percent). These data lend support to the contention that in society in general, males who choose traditional female activities are likely to face greater disapproval than females who choose traditional male activities. However, the responses to the questions on whether the students felt "looked down on" by other students and teachers do not support this expectation. Answers to these questions (Table 5-5) reveal that female nontraditional students were significantly more likely to feel looked down on by both students and teachers. Among the males the tendencies were the same, but the differences were not statistically significant.

All of the students were asked whether they thought the students in their vocational courses were "really serious about learning the skills being taught." The question was asked twice, first regarding the male students, then regarding the female students. All current vocational students responded to both questions. When the question referred to the seriousness of male students, the traditional male students evaluated their traditional male classmates, and the nontraditional males evaluated their nontraditional male classmates. When the females responded to this same question about the seriousness of the male students, the nontraditional females evaluated the traditional males in their classes. When the question referred to females, these relationships were just the reverse. The following schema may clarify these relationships:

	Question refers to	
Respondents	Males	Females
Nontraditional Male	Nontraditional	Traditional
Nontraditional Female	Traditional	Nontraditional
Traditional Male	Traditional	Nontraditional
Traditional Female	Nontraditional	Traditional

The horizontal axis identifies the sex of the students the questions referred to. The vertical axis identifies the respondent group. The entries in the boxes identify the group the respondents evaluated when they answered the questions.

TABLE 5-4

Current Students' Ratings of Friendliness of Other Students in Vocational Courses by Sex and Traditional/Nontraditional Enrollment

Degree of Friendliness	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Very friendly	38	52	44	43
Friendly	53	43	35	45
Neutral	9	5	21	11
Unfriendly	0	0	0	0
Very unfriendly	0	0	0	1
Base Number	102	86	34	113

TABLE 5-5

Current Students Who Reported They Felt Other Students and Teachers "Looked Down" on Them Because of Courses They Were Taking, by Sex and Traditional/Nontraditional Enrollment

	By Students				By Teachers			
	Females		Males		Females		Males	
Felt Looked Down On	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%	%	%	%	%
Very often	3[a]	0	10	2	3[a]	0	6	2
Often	2	0	2	1	4	1	0	4
Sometimes	10	12	14	12	8	6	4	7
Rarely	32	24	30	28	27	20	32	21
Never	53	64	44	58	58	74	58	65
Base Number	146	118	50	136	146	118	50	136

[a] Differences between traditional and nontraditional students significant
Females, by students, $p < .05$
Females, by teachers, $p < .03$

It is likely that the respondents found the questions more straightforward than they may seem to the readers of this report. The respondents were simply evaluating their male and female classmates and were not concerned with who was traditional and who was nontraditional (see questions 56 and 57, Appendix B-4).

What, then, did these questions reveal about the seriousness of the traditional and nontraditional students? Table 5-6 shows that male students were seen as more serious by the nontraditional females than by the traditional females (62 percent versus 44 percent) ($p <$ .03). In other words, as viewed by their female classmates, the traditional males were more serious about their studies than the nontraditional males. When the responses of the male students were examined, there was a nonsignificant tendency for the traditional males to view the other males in their classes as more serious than the nontraditional males viewed their nontraditional male classmates (58 percent versus 44 percent).

Table 5-7 shows that traditional females were viewed as more seriously involved in their courses by the other traditional females in their classes than by the nontraditional males in the same classes (69 percent versus 46 percent). Nontraditional females in traditional male classes were also more likely to rate each other "serious" than the traditional males in these classes rated them (60 percent versus 46 percent).

It appears that two conclusions can be drawn from Tables 5-6 and 5-7 about the students in the sample:

(1) Traditional males appear more serious about their vocational courses than nontraditional males according to all groups in the sample;

(2) Both traditional and nontraditional females are viewed as more serious by their female classmates than by the males in their classes.

Extracurricular Activities

To determine whether the students who made nontraditional occupational choices also participated in nontraditional extracurricular activities, the respondents were presented with a list of typical high school organizations and clubs and asked to check all those of which they were active members. It was hypothesized that nontraditional

TABLE 5-6

Current Students' Ratings of Seriousness of Male Students in Vocational Courses by Sex and Traditional/Nontraditional Enrollment

Seriousness of Male Students	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Yes, serious	62[a]	44	44	58
Undecided	31	39	41	32
Not serious	7	17	15	10
Base Number	101	84	34	109

[a] Difference between nontraditional and traditional females significant at .03 level or less.

TABLE 5-7

Current Students' Ratings of Seriousness of Female Students in Vocational Courses by Sex and Traditional/Nontraditional Enrollment

Seriousness of Female Students	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Yes, serious	60	69	46	46
Undecided	31	26	37	36
Not serious	9	5	17	18
Base Number	99	87	35	109

females would be more likely to be involved in sports than would traditional females. The nontraditional female, it was assumed, would be less restricted by conventional patterns and therefore more adventurous and willing to risk the disapproval of her classmates. Further, a school climate that accepted females in traditional male programs might also be likely to accept females in sports.

Nontraditional females participated in interscholastic and intramural sports more frequently than traditional females (see Table 5-8), but neither of the differences was significant. However, because the interscholastic sports item included cheerleaders, typically a female role in high schools, the females who indicated that they participated in both interscholastic and intramural sports were analyzed.* Among the nontraditional females, 14 percent checked both activities; among the traditional females, only 4 percent checked both. This difference yielded a chi square value of 6.56 ($p < .02$). There is thus some support for the hypothesis that the nontraditional females in the sample were more likely to participate in school-sponsored athletics.

A significantly larger proportion of traditional males were active members of vocational clubs ($p < .002$). The vocational clubs for nontraditional males were those in which females predominated. The nontraditional males may not have felt as welcome in these more informal social settings as in the classroom. The nontraditional females participated in the male-oriented vocational clubs as much as the traditional females did in theirs. There were no other significant differences between the participation rates of traditional and nontraditional students of the same sex in school organizations or activities. Female students, overall (traditional and nontraditional combined) were more likely to be involved in the listed activities and clubs than male students ($p < .05$).

Overall Satisfaction with Education

The current students were asked several questions concerning how they felt about the education they were receiving. In general, most students were satisfied. Seventy-eight percent of all the current students reported that they were satisfied (52 percent) or very satisfied (26 percent) overall (Q38 in the current student's questionnaire, Appendix B-4). Six percent said they were dissatisfied, and only 1 percent was very dissatisfied. The remaining 15 percent were neutral. Among the vocational students, the level of satisfaction with their vocational courses was even higher. Nine out of ten were either very satisfied (45 percent) or satisfied (45 percent). Most of the remaining 10 percent were neutral (8 percent); 2 percent were dissatisfied, and less than 1 percent very dissatisfied.

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*Cheerleading could not be considered an interscholastic sport.

TABLE 5-8

Current Students' Reported Membership in School Organizations or Clubs By Sex and Traditional/Nontraditional Enrollment

Organization or Club	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Vocational clubs	38	36	16[a]	42
Interscholastic sports	21	12	38	32
Intramural sports	19	12	36	26
Musical, dramatic, or debating club, and glee club	17	20	22	11
Student government	12	13	12	9
School newspaper	8	9	10	10
Subject matter clubs	8	14	14	6
Hobby clubs	5	8	20	15
Service clubs	4	9	8	4
Other	14	19	12	11
Not involved in any organization or club	30	30	22	30
Base Number	146	118	50	137

[a] Difference between nontraditional and traditional males significant at .001 level or less.

Rather than analyze all of the questions related to satisfaction separately, it was decided to factor analyze the relationships among them to determine if a few basic response tendencies, such as general satisfaction, were reflected in the answers to the individual items (see Appendix Tables C-7 and C-8). Two basic response tendencies appeared to determine the answers: a general satisfaction factor, and a vocational satisfaction factor. Perhaps the most interesting finding to emerge was the overall similarity in the distributions for both of the factors, for both sexes, and for both traditional and nontraditional students. In general, most respondents were quite satisfied and only a few were very dissatisfied (see Tables 5-9 and 5-10).

TABLE 5-9

Factor Scores on General Satisfaction with Education, Current Students by Sex and Traditional/Nontraditional Enrollment

Factor Scores	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
30 or less	4	2	0	5
31 to 40	13	9	16	11
41 to 50	39	31	31	36
51 to 60	33	47	41	36
61 or more	10	10	12	12
Base Number	145	118	49	137

No significant differences were obtained between the traditional and nontraditional students on any of the comparisons. The measures of attitudes toward education included in these factor scores provide no evidence that nontraditional students were any more or less satisfied than their traditional classmates. Thus, nontraditional programs do not appear to yield any increased satisfaction, but neither do they impose any dissatisfaction "costs" on students who choose to follow them.

TABLE 5-10

Factor Scores on Satisfaction with Vocational Courses, Current Vocational Students Only, by Sex and Traditional/ Nontraditional Enrollment

Factor Scores	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
30 or less	3	4	9	2
31 to 40	9	6	15	7
41 to 50	40	39	30	34
51 or more	48	52	46	57
Base Number	96	83	33	109

Summary

Students were questioned about their school experiences and attitudes in order to discover whether or not nontraditional students have different attitudes and experiences than traditional students do. A few significant differences emerged.

Traditional male vocational courses were seen as more difficult by nontraditional females. Nontraditional females were more likely to perceive their teachers' attitudes as neutral, while traditional females were more likely to rate their teachers' attitudes as encouraging. Traditional male students appear to their classmates to be more serious about their courses than nontraditional males, according to all groups in the sample, and female students appear more serious to other females than to males.

Approximately one-half of all students in the sample reported encountering some problems in their vocational programs. Significant differences were found between nontraditional and traditional females on two items: nontraditional females were more likely to cite "lack of background in area"; traditional females were more likely to cite "too much work required" as problems. There were no significant differences in the problems reported by the two groups of males.

When asked about their involvement in school activities, the students' replies revealed that the nontraditional females in the sample were significantly more likely to participate in school-sponsored athletics than were the traditional females.

Despite these differences, however, there is no evidence to suggest that nontraditional students are any more or less satisfied with their education than their classmates in traditional programs.

PART IV
COUNSELORS AND TEACHERS

CHAPTER 6

COUNSELORS' PERCEPTIONS OF AND ATTITUDES TOWARD NONTRADITIONAL ENROLLMENTS

Introduction

This chapter examines the results of the interviews which were conducted with counselors during the site visits in order to evaluate the counselors' performance in expanding career opportunities for young women. The sample is described and the counselors' responses in the following areas are discussed: their perceptions of their responsibilities as counselors and how they divide their time; students' course selection and career choices; career-related activities of schools and school districts; guidance materials; and the counselors' role in job placement of their students. Where relevant, appropriate data from the current students' questionnaires are examined in order to compare students' perceptions of the counselors' influence on their course and career selections with those of the counselors.

The guidance counselor is a potentially powerful influence on the student's selection of a nontraditional program. Counselors can be viewed as "gatekeepers" to the various vocational and nonvocational programs offered by the schools who assist the students in choosing programs which are suited to their interests and abilities, and inform them of the probable results of choosing unsuitable programs. Viewed from this perspective, the impact that counselors can have on nontraditional program choice--and thus, presumably, entry into nontraditional occupations--cannot be minimized.

Many of the contributors to the current literature on sexism in education support this view of school counselors as critical influences with a special responsibility for working against occupational stereotyping on the basis of gender alone. For example:

> The broadening career opportunities which should be opened to women place upon counselors a special responsibility to raise the aspirations of girls, to assist them in achieving a satisfactory identity both as women and as workers, and to help replace past occupational stereotypes.[1]
>
> In order to be effective, the counselor's efforts should not be passive, but active; in other words, the counselor should not wait for girls to ask for help. They do not know that they need it.[2]

> Counselors may reinforce female students' thinking about curricular and career decisions, or encourage them to think more narrowly or more broadly about their decisions.[3]

> Beyond the tasks of specific guidance as to occupational choice is a great need that general information be provided to adolescent girls concerning the economic facts of life and what a female's realistic expectations about financial support ought to be.[4]

> Counselors err if they counsel females in such a way as to encourage conformity to present society when future society is likely to be much less supportive of traditional roles and more supportive of a number of alternative and combination roles for women.... The counselor...must find ways to offer more support for female deviance from sterotypic interests, attitudes, and behavior.[5]

> Experience suggests that guidance can help girls--but only if the guidance provided runs counter, in many respects, to the myths concerning women's role and potential in society and work life and helps to overcome the heavy weight and crippling effect of prejudice and tradition. Vocational guidance should have the aim of correcting the rigid and unduly romantic image girls have of their future work lives.[6]

Before presenting the counselors' responses to interview questions, three factors should be noted which may confound the data:

1. *The typical counselor is expected to do more than vocational/occupational guidance*. A host of other duties are regularly assigned to counselors, including scheduling, recordkeeping and other administrative duties, and occasionally, occupational placement and the handling of discipline and truancy cases. Such conflicting and time-consuming demands (rather than incompetence or insincerity on the part of the counselors) may result in lack of congruity between expectations for counselors and their actual performance.

2. *A multitude of other "molding forces" have shaped the students before their arrival at the high school and after they are there*. The importance of early socialization to sex roles in the home and elementary schools has been discussed elsewhere (see Chapter 2). The high school setting and society at large continue to provide cues to "appropriate" behavior based on sex. Thus, counselors' efforts to encourage nontraditional enrollments may conflict with other cues the students receive. Are the counselors able to overcome these other forces? Can they be expected to?

3. *Counselors' own sex biases may influence their activities*. It is hypothesized that counselors' own awareness of, and attitude toward, the issue of sexism--in education and society in general--influences the kind of counseling they provide. Counselors' attitudes toward

sex-stereotypes have not been the focus of much research, but a review of the existing literature suggests the following:

1. Many counselors are uninformed (or misinformed) about women in the labor market.

2. Many counselors are unaware of the problems young women face concerning women's changing roles.

3. Counselors tend to react negatively to "deviate", i.e., nontraditional, goals for females.

4. Male counselors are more guilty of holding sex-stereotyped attitudes toward female students than are female counselors.[7]

The responses of the counselors who made up the sample in this study will be viewed with these general findings in mind. A description of the counselors who were interviewed at the sample schools is provided in Table 6-1.

Counselors' Perceptions of Responsibilities and Division of Time

Each counselor was asked the question: "What do you consider personally to be the main responsibilities of a counselor?" A number of the nineteen counselors who were interviewed indicated that they saw their role as including something like "help student to see his [sic] fullest potential, to make the most of himself." This, broadly interpreted, could include selection of a career. However, only five of the nineteen counselors specifically mentioned vocational (or occupational) counseling as one of a counselor's major responsibilities. To many, dealing with a student's personal problems ranked higher. To make a distinction between these two responsibilities may be misleading since students' personal problems may very well include concern about their futures, i.e., their occupational choices. However, the failure of three-fourths of the counselors to use the term "vocation" or "career" in describing the responsibilities of a counselor has relevance for this study.

It was hypothesized that vocational school counselors would perceive a greater responsibility for vocational/occupational guidance than counselors at comprehensive high schools. The data do not support this hypothesis. As few counselors at vocational schools as at comprehensive schools cited occupational counseling as a primary responsibility.

There was a great deal of congruence between the counselors' own view of their roles and their perception of the schools' expectations for them. Only four counselors saw any inconsistency in the two positions. They stated that their schools make administrative paperwork demands which interfere with guidance counseling. The average amounts of time that the counselors estimated they spend in various activities is shown in Table 6-2.

TABLE 6-1

Statistical Data for Counselors Interviewed
(n = 19)*

1. Sex:	
Male	12
Female	7
2. Race:	
White	15
Black	3
N.A.	1
3. Type of School:	
Comprehensive	10
Area vocational	9
4. No. of years in education	
Avg.	12.9
High	27.5
Low	1.25
5. No. of years as counselor:	
Avg.	6.8
High	18
Low	1.25
6. State certification in counseling:	
Yes	16
No	3
7. Worked full-time in occupational area other than education:	
Yes	11
No	8
8. Full-time or part-time counselor:	
Full-time	15
Part-time	4
9. Number of students counseled:	
Avg.	464
High	900
Low	150

---

*Because of the limited number of counselors surveyed, generalizations made from our data must be considered cautiously.

TABLE 6-2

Division of Time as Estimated by Counselors
(n = 19)

	%
Keeping records	19
Conducting interviews and conferences with students and parents	50
Administering tests	3
Handling discipline problems	3
Consulting with teachers and other school staff	13
Meeting with potential employers	2
Other	10

These data support the notion that counselors do more than vocational counseling. One quarter of their time is spent in noncounseling duties (e.g., keeping records, administering tests, and handling discipline problems) and another 12 percent is spent consulting with teachers. The counselors were also asked to break down the time they spend counseling students into specific activities. The data for this breakdown are shown in Table 6-3.

TABLE 6-3

Breakdown of Time Spent Counseling Students
(n = 19)

	%
Helping students select courses	30
Helping students make post-secondary educational plans	16
Helping students make post-secondary vocational plans	17
Dealing with personal problems	17
Dealing with academic problems	16
Other	4

Table 6-3 indicates that well over half of the time counselors spend with students is devoted to occupational (or educational) planning, including course selection. So, in fact, despite the failure of many of the counselors to cite vocational counseling as a major responsibility, most of the time they spend with students appears to be devoted to such counseling--helping students select their courses (30 percent) and make their post-high-school plans (32 percent).

Course and Career Choices

As suggested earlier, counselors' attitudes towards sexism may influence the efforts they make to reduce sex-stereotyping in vocational programs and occupations. While no specific questions in the interview guide asked the counselors to state their positions on sex stereotyping, several questions were designed to elicit responses which could be used to assess their attitudes on the subject.

For example, counselors were asked how active a role they play in recruiting students into nontraditional areas. Over half indicated that they encourage students to take nontraditional programs, and only four indicated that they ever discourage the same. Yet it appears that counselors offer encouragement only if the student first indicates a nontraditional interest, and then (by their own admission), they probe to be sure the student is "really serious," has "thought it through," and is not suggesting such a vocation for its "shock value."

What motivates such probing? It could result from the counselors' awareness of the problems which workers may face in nontraditional occupations and their desire to provide "realistic" counseling. For example, community reaction to nontraditional enrollments was cited by some counselors as a reason they do not do more counseling toward nontraditional enrollments. More than once, however, two counselors from the same school perceived community reaction quite differently. It thus appears that these counselors' own perceptions may color their assessment of community attitudes towards nontraditional enrollments, or that these counselors have had experiences with different segments of their communities which resulted in different impressions.

According to the responses of the nineteen counselors in the sample, sexism in school programs had been raised as an issue in only four of the communities. In two of the schools, the vehicle used to call attention to sexism was athletics. In one school, the issue was whether or not to allow girls to try out for the soccer team; in the other, whether or not to admit girls into the varsity club. In the third school, pressure from a local women's organization resulted in some of its members being invited to talk to the behavioral science classes. In the fourth school, members of a local women's organization had demanded to take evening classes which they were told (but did not believe) were full. When they were admitted, the classes actually were overcrowded. These were the only overt indications of any community awareness of or interest in sexism in the selected schools.

Another reason that counselors do not do more counseling towards nontraditional programs may be (as suggested above) that counselors' personal biases and attitudes toward women's changing roles in society influence their professional advice. For example, one counselor (not from one of the sample schools) told a member of the project staff, "If I wanted to propagandize, I would try to encourage my students into nontraditional occupations, but I don't feel that is my role" (emphasis added). No matter what the motivation, it is hypothesized that students who are tentative about a nontraditional choice are likely to be "scared away" by too much probing of a nature which implies that their occupational choice is a deviation from what is "normal" for their sex.

There was no consensus among the counselors who were interviewed concerning the type of students who select nontraditional programs. However, the responses suggest that nontraditional students are, more often than not, one of two kinds: those not afraid to explore the unknown, to accept challenge; who are self-confident, independent (not greatly influenced by peer pressures); above average and serious; and probably dissatisfied with traditional living; or, the student who is not "making it" in school; who wants to shock or impress the counselor to get attention. One counselor suggested that very few "average" students select nontraditional courses. Another believed that those with less ability tend to be more traditional. Some counselors perceived differences between males and females who select nontraditional courses. One suggested that males who do so tend to have a "problem" (defined as being "less masculine"). Another noticed that females in nontraditional programs tend to have high self-esteem; males in such courses tend to be loners with lower self-esteem. Another pointed out that females in nontraditional programs do not fit the stereotype of "tomboy or mannish." ("We have one female in auto mechanics, and she's not bad looking.") One counselor believed that nontraditional students come from families in which both parents are interested in careers. Another claimed that such students are those who are most comfortable with the opposite sex.

Obviously, many factors influence a student's choice of program, and many of these factors begin operating prior to the student's arrival in high school. Counselors were asked to list the reasons students tended to give as the basis for their career interests. The most frequent responses for female students were (1) employment (desire for salable skills); (2) parental influence, and (3) interest and personal experience (including exposure to coursework in the area). For males, employment and interest were followed by father's occupation, parents, and peers. Several counselors cited a tendency for female students to choose courses based on the short-range goal of securing employment immediately after graduation with little thought to a long-range career. Occupational opportunities in the immediate geographical area were also cited as being of concern to some students.

The counselors were also asked what they believed to be the strongest influence(s) on the career interests of students. Most often they cited money and parents, although one counselor suggested that boys are less influenced by parents than girls are. Half of the counselors indicated that students sometimes report that their parents oppose their choice of a course of study. Only two claimed that they do not take any action in such cases; the rest contact the parents. Only two counselors felt that these contacts do much good. According to the others, results are usually ambiguous or negative. A discussion of parental resistance revealed that some of it is seen by the counselors as a conflict between child and parent basically unrelated to course choices; others perceive conflict only in the case of unacceptable course choice, i.e., enrollment in nontraditional, predominantly male or female occupations. For example, auto mechanics is considered a "dirty job"--especially for girls; fathers are more opposed than mothers if daughters want to go into technical areas; parents of boys appear more "up tight" concerning cross-sex occupational choices.

Parental influence was hypothesized above as one of the "molding forces" that may conflict with counselors' attempts to open up career opportunities to young women. (Students' perceptions of parental influence were examined in Chapter 4.) Other influences on girls listed by the counselors were cultural conditioning and societal forces, awareness of the increasing diversity of job opportunities, and awareness that they do not have to pursue stereotyped roles.

Interestingly, only one of the counselors viewed himself (or counselors in general) as among the strongest influences on students' career interests. None of the others suggested that anything they said or did influenced students' career interests. In fact, as if in response to an unspoken expectation that they should be strong influences but perhaps are not, several of the vocational school counselors blamed the sending schools (and their counselors) for not encouraging more students to enroll in nontraditional programs.

Vocational schools can, however, provide information on nontraditional occupations during the tours that most of them conduct for students from sending schools (prior to enrollment), and--as some schools are doing--by sending student representatives to the sending schools to talk about and to encourage "crossover" enrollments. In addition, the data on division of time call into question the validity of vocational school counselors' placing all the blame on the sending schools for low nontraditional enrollments. On the average, vocational school counselors estimated that they spend 46 percent of their time conducting interviews and conferences with students and their parents; and of the time spent with students, 29 percent is devoted to helping students select courses, 14 percent to helping students make postsecondary educational plans, and 19 percent to helping students make postsecondary vocational plans. Sixty-two percent of their time with students, therefore, is spent dealing with questions about course selection and career choices.

Counselors at comprehensive schools have more potential influence on students' program selection, especially if junior and senior high students are housed in the same building or complex. However, these counselors estimated spending almost the identical amount of time in the areas of course selection and career choice as the counselors at the vocational schools. The students' own perceptions of their course and career choices and the influences on those choices are presented and discussed in Chapters 4 and 5.

Career-Related Activities of Schools and School Districts

All of the counselors who were interviewed indicated that their schools and school districts provide some activities to assist students in their vocational development and vocational choices (see Table (6-4).

It was not uncommon to find different counselors at the same sample school responding differently to items listed in Table 6-4. For example, at one of the vocational schools, two counselors indicated that career programs for parents are held; a third counselor responded that they are not. At one vocational school, a counselor indicated that evening/summer career-related conferences involving parents are held; another counselor at the same school indicated they are not. Disparities also occurred concerning whether group counseling on occupations takes place. Perhaps the greatest difference was found in responses to the item asking whether the school district had a systematic program to introduce material about careers and the world of work to elementary school students. At half of the schools, counselors responded inconsistently on this item.

TABLE 6-4

Career-Related Activities Offered in Sample Schools
(n = 10)

	Yes	No	Not Ascertained
Career programs for students	9	0	1
Career programs for parents	5	4	1
Evening/summer career-related conferences involving parents	2	7	1
Group counseling on occupations	9	0	1
Separate counseling groups for male/female students	2*	6	2
Potential employers from community brought into school	9	0	1
Systematic program in school district to introduce careers to elementary school students	6	1	3

*At one of these schools, the counseling on occupations is done in vocational classes. Because some of these classes are composed of students of one sex, the counseling is necessarily sex-segregated.

Much of the literature on socialization suggests that sex-role stereotyping begins early in a child's life (see Chapter 2). One conclusion of this literature is that efforts to combat sexism must also be started at an early age. The data from the counselors suggest that programs of career information are beginning to be introduced to elementary school children in six of the ten school districts--an encouraging trend. At several of the remaining high schools in the sample, however, counselors did not know whether such programs were conducted. In fact, at one of the sample schools, none of the three counselors interviewed could answer this question. This lack of knowledge indicates either that such programs do not exist, or that they lack organization within the school district.

All of the vocational school counselors claimed that they make visits to the home schools in order to inform students of the career opportunities available at the vocational school, and most provide tours of the vocational facility for prospective students. However, more needs to be known about the procedures involved in such visits. For example, until 1974-75, one of the vocational schools in the sample scheduled females to visit certain shops, males to visit others. If students specifically asked to visit a shop that was not traditional for their sex, they were allowed to do so, but such visits were not suggested by the school personnel. Such a procedure very effectively minimized crossover enrollments.

A few of the schools sent student "specialists" into the sending schools to talk about the programs. The importance of nontraditional sex role models in such programs cannot be overestimated, but only one of the schools deliberately sent students of the nontraditional sex.

It should be reiterated that the schools in the sample were selected after a nationwide search for schools with nontraditional enrollments. Yet even in the sample schools, systematic activities to break down sex-role stereotypes were uncommon. However, these schools did conduct some activities which, while not necessarily seen by the schools as part of a program specifically designed to break down occupational stereotyping, may have led to female entry into traditional male areas. For example, several students in one vocational school presented a play at the various sending schools which dealt with nontraditional enrollments. (The participants felt, however, that it was not very well received.) At least one counselor indicated that his school sends students on field trips to acquaint them with various occupations. These activities are other ways of providing valuable role models for the nontraditional enrollee. One of the counselors indicated that his school sponsored a "Career Day for Women" in 1974-75 which focused specifically on the range of occupational options available to females. These schools, among the "best" in terms of nontraditional enrollment, are doing relatively little in a systematic way to encourage such enrollments, but they are breaking down barriers. It can only be imagined what impact a concentrated effort could have.

Five of the six comprehensive schools in the sample have vocational advisory committees, as do all four of the vocational schools. These committees include employers and workers in the particular occupational field the committee advises. One-third of the counselors who indicated that such committees exist in their schools also disclosed that they have little or no contact with these committees. These counselors thus seem to be limiting their opportunities to learn of conditions in these fields, thereby handicapping their ability to counsel realistically about certain occupations. Here again, however, counselors' failure to meet with advisory committees may be a function of lack of time rather than lack of interest.

Guidance Materials

All but three of the counselors who were interviewed stated that they use vocational interest or vocational preference inventories in their work with students. Of these, none indicated that separate forms are administered for males and females. However, four counselors indicated that separate scoring forms are used for males and females (Kuder and Strong tests). (An indication of the generally low level of awareness of sexism among the sample counselors was provided by a man who stated that it had not occurred to him that he used separate forms until the question was asked.)

The issue of the use and abuse of vocational interest tests is coming increasingly to the fore.[8] Counselors and test constructors face a dilemma because interest tests can only be validated against the labor force--a labor force which reflects occupational stereotyping. If publishers and counselors cannot adapt tests so that they present the complete range of occupations to women, and if they feel that the inventories are too useful to be withdrawn, then they might take Tiedt's advice and label them "Caution, this instrument may limit your choices."[9]

The guidance materials available to counselors can certainly hinder or further any efforts they may make to combat occupational stereotyping. Seven counselors indicated that they had some guidance materials available which encourage females to seek careers in trades or other male occupations. For example, one school had just received a newly revised booklet from the American Welding Society. The cover letter, addressed "Dear Sir or Ms." stated, "Please read 'he or she' wherever the booklet now suggests that welders are 'men.' Women can weld, and inspect, and become technicians and engineers. The field is open." However, only one-third of the counselors expressed satisfaction with the adequacy of the vocational guidance materials available to them. ("Adequacy" was guaged in terms of recency, thoroughness, usefulness to students, and degree of sex stereotyping.) Those who were satisfied with the materials cited the emphasis on coeducation in the new materials. Some of the most sex-stereotyped materials seemed to be those emanating from state agencies. One booklet, published by a State Advisory Council for Vocational and Technical Education, and focusing on occupational opportunities, included only sex-segregated pictures; e.g., sewing (all females), operating machinery (all males), blueprint drawing (all males).

Course catalogs or counselors' handbooks are printed materials issued by schools which describe the courses available to prospective students. Some of these materials are blatantly sex-stereotyped. In one course catalog in use at one of the sample schools, 'he' is used in describing traditionally male jobs; 'she' is used when traditionally female jobs are described. The pronoun one is used only for a few of the traditionally less-stereotyped courses. Examples from this book: "A welder is a man who..."; "A laboratory technician is one who...";

"The dental assistant will assist a dentist...so that his time may be more efficiently utilized. Her primary function ..." (emphasis added). In one counselor's handbook, while the text is nonsexist, most of the drawings which accompany each course description depict a person of the traditional sex for the occupation.

Some recent publications for use by counselors represent a great improvement over much of the material counselors have relied on until now. These are listed in a bibliography at the end of this chapter.

Counselors and Job Placement

The counselors interviewed did not agree on the role they should play in job placement. Responses ranged from "highly important--now becoming a priority in this school" to "really don't do much." One counselor pointed out that his personal view was that he should assist but lacks time to do so, even though the school viewed placement as part of his job--another reflection of the varied roles counselors are expected to play.

The estimated average amount of time counselors spent in meetings with potential employers was 1.7 percent for those in comprehensive schools and 4.5 percent for those in vocational schools. This tends to confirm the counselors' perception that they play a limited--even minimal--role in job placement of their students.

One vocational school, however, had a permanent, full-time employment counselor from the state employment service at the school. This counselor stated that she was able to place almost every graduate who wanted a job because of the good reputation of the school's students. Although she had had little experience with nontraditional females, she thought that employers generally were open to employing females with the exception of the construction trades or other jobs which require physical strength.

Summary

Several of the major findings to emerge from this examination of counselor responses to questions designed to evaluate their impact on students' career choice are:

1. The counselors in the sample (and, presumably, counselors in general) are expected to serve in multiple capacities and to counsel an average of 464 students. Their time is limited, and priorities must be and are set by them and their schools. Overall, eliminating sexism in vocational education is not a priority. As one counselor--apparently unfamiliar with Title IX--put it, "Under the law, we have to provide for the disadvantaged students with special needs, etc. Up to this point, the same is not true for female students." The implication is clear--discrimination which is not thought to be illegal does not get much attention.

2. Three-fourths of the counselors in the sample did not consider occupational counseling to be one of their main responsibilities. This was borne out by their feeling that they have little influence on students' career interests. Results from the student questionnaires substantiated this perception. Only 16.2 percent of the students (18 percent of traditional students and 15 percent of nontraditional students) cited counselors as among those who influenced their choice of a course of study, and only 6.5 percent thought their counselors had had the most influence on their choice. (More positively, only 2.9 percent of the students claimed to have encountered any resistance or criticism from the counselors concerning their course of study.)

3. The impression given by the counselors in the sample was that while they do not discourage nontraditional enrollments, they usually encourage them only if the student first indicates a nontraditional interest and even then they probe to be sure the student is really serious. Such probing may in fact deter students from entering nontraditional programs.

4. Those who want to see vocational stereotyping eliminated, thereby broadening occupational opportunities for women (and men), might be advised to educate counselors with facts and figures rather than relying on abstract arguments concerning the justice of equality for women, and the inequity of keeping women in low-paying, low-skilled jobs. While such arguments are often presented using such words as "self-esteem" or "fulfillment," terms familiar to counselors steeped in psychology courses in college, a more productive approach to educating high school counselors to work against sex-role stereotyping may be one based on economics. Counselors might be most influenced by the information which indicates that nine out of the ten of today's high school women will work outside the home on an average of twenty to twenty-five years; that 50 percent of the women who now work do so of economic necessity; that there will not be enough "female" jobs in ten years for all the women who will have to work; and that there are not now enough males to fill traditional male jobs.

It is becoming established that teacher and counselor training institutions need to direct more attention to teaching about sexism, but curricular changes will affect the attitudes of only prospective counselors--not those already in positions of influence in the schools. The latter need to be presented with information which can be absorbed in short-term workshops and in-service training sessions.

One caveat must be added. Despite what appears to be a rather negative assessment of the role that counselors at the sample schools are playing in expanding career opportunities for their women students, it should be stated that members of the visiting teams noted that counselors--more than teachers or administrators--were the educational personnel most aware of the issue of sexism and its limiting effects on young people.

A Partial Bibliography of Recent Publications for Use by Counselors

1. Linda B. Stebbins, Nancy L. Ames, and Ilana Rhodes, Sex Fairness in Career Guidance: A Learning Kit, (Cambridge, Mass.: Abt Publications, 1975).

   The curriculum consists of four chapters, which discuss traditional and occupational roles for both sexes and provides an introduction to a sex-fair guidance program. An annotated resource guide to readings and audio-visual materials is included. The kit has been developed for use by counselors, counselor-educators, teachers, administrators, and librarians under a contract from the National Institute of Education.

2. Esther E. Diamond (ed.), Issues of Sex Bias and Sex Fairness in Career Interest Measurement, (Washington, D.C.: National Institute of Education, Department of Health, Education and Welfare, 1975).

   This book is a series of papers with bibliographies which not only give an overview of the issues of sex bias in counseling and teaching, but also represent a comprehensive analysis of sex bias in measurements and inventories.

3. Helen Farmer and Thomas Backer, Women at Work, (Los Angeles, Ca.: Human Interaction Research Institute, 10889 Wilshire Blvd., 1975).

   This is a three-part counseling series:

   a. Women at Work: A Counselor's Sourcebook. Intended for use primarily by practicing counselors who are "helping women and girls make career decisions." Includes information on career opportunities for women (in nontraditional as well as traditional areas), legal rights of women in the world of work, counseling techniques and strategies, and discussions of recent research on counseling women.

   b. Women at Work: Things are Looking Up. A booklet designed for use by females who "are seeking career counseling in various settings." (This is a condensed version of the Counselor's Sourcebook).

   c. Selected Annotated Bibliography on Women at Work. This includes 240 citations dealing with labor market experience of women, psychology of career choices, etc.

4. Sex Equality in Guidance Opportunities. Project Director: Mary Ellen Verheyden-Hilliard, (Washington, D.C.: American Personnel and Guidance Association. 1607 New Hampshire Avenue, 1976).

   This project represents "a coordinated national effort to provide technical assistance to help elementary and secondary school counselors and related educational personnel to recognize and change the detrimental and limiting effects of sex role stereotyping which prevent children from developing and utilizing their full capabilities." Includes a multi-media kit and material for conducting training workshops.

5. Joyce Slayton Mitchell, I Can Be Anything: Careers and Colleges for Young Women (New York: College Entrance Examination Board, 1975). Descriptions of a wide range of careers, including education or training requirements and average salaries. Illustrated with photographs of women performing in many occupations.

6. Jane Lerner, Fredell Bergstrom, and Joseph E. Champagne, EVE: Equal Vocational Education (Houston, Texas: Center for Human Resources, The University of Houston, 1976). See Appendix A for a description of this project.

7. Exploring Sex Roles: A Kit for Counselors. Available from Vanconver Status of Women, 2029 West Fourth Avenue, Vanconver, B.C., Canada. A useful and inexpensive kit that includes a number of ideas, games, and exercises for secondary school students. Includes a bibliography.

8. Counseling California Girls, State of California Documents Section, P. O. Box 20191, Sacramento, California 95814. A packet that includes a number of simulation games which encourage exploration of sex roles and realistic problem-solving.

FOOTNOTES

[1] National Organization for Women, New York Chapter, Report on Sex Bias in the Public Schools, 3rd edition, 1973, p. 3.

[2] Iris M. Tiedt, "Realistic Counseling for High School Girls," in And Jill Came Tumbling After: Sexism in American Education, Judith Stacey et al. (eds.) (New York: Dell Publishing Co., Inc., 1974), p. 238.

[3] Pamela Ann Roby, "Vocational Education and Women," a paper, May 1975 (University of California, Santa Cruz), p. 21.

[4] Regina Healy and Diane Lund, "Chapter 622: One State's Mandate," in Inequality of Education, 18 (October 1974), p. 43.

[5] Marlene Pringle, "Counseling Women," CAPS Capsule, 4:3 (Spring 1971), pp. 14-15.

[6] Equality of Opportunity and Treatment of Women Workers, Report 8, International Labour Conference, 60th session, 1975, Geneva, p. 24.

[7] P. A. Engelhard, "A Survey of Counselor Attitudes Toward Women," The Minnesota Counselor, 9:1 (February 1960), pp. 14-28; H. Thomas and N. Stewart, "Counselor Response to Female Clients with Deviate and Conforming Career Goals," Journal of Counseling Psychology, 18 (1971), pp. 352-57; William C. Bingham and Elaine W. House, "Counselors View Women and Work: Accuracy of Information," Vocational Guidance Quarterly (June 1973), pp. 262-68; Nancy Schlossberg and J. J. Pietrofesa, "Perspectives on Counseling Bias: Implications for Counselor Education," Counseling Psychologist, 4 (1973), pp. 44-54; and P. A. Engelhard, K. O. Jones and R. J. Stiggins, "Trends in Counselor Attitude About Women's Roles," Journal of Counseling Psychology, 23:4 (1976), pp. 356-372.

[8] Carol Tittle, "The Use and Abuse of Vocational Interest Tests," in Stacey, Bereaud, and Daniels (eds.), And Jill Came Tumbling After: Sexism in American Education (New York: Dell Publishing Co., Inc., 1974), pp. 241-248; and Esther E. Diamond (ed.) Issues of Sex Bias and Sex Fairness in Career Interest Measurement (Washington, D.C.: National Institute of Education, Department of Health, Education, and Welfare, 1975).

[9] Tiedt, op. cit., p. 246.

CHAPTER 7

TEACHERS' PERCEPTIONS OF AND ATTITUDES TOWARD NONTRADITIONAL ENROLLMENTS

Introduction

The responses of the vocational teachers who were interviewed during the site visits for this study are examined in this chapter in order to determine the teachers' perceptions of and attitudes toward nontraditional students. The following topics are discussed: teachers' perceptions of a) the relationship between program objectives and sex of enrollees, b) the differences in skills and motivational levels between male and female students, and c) the positive and negative aspects of co-ed classes; methods for increasing nontraditional enrollments; the teachers' efforts to place nontraditional students in jobs; reasons for course dropouts; and finally, the teachers' perceptions of the general tone in their schools concerning female enrollment in traditional male occupational areas.

The role of the teacher in breaking down sex barriers in vocational education cannot be overrated. A counselor may encourage, or even persuade students to enroll in a nontraditional program, but if the teacher resists or ignores nontraditional students or treats them differently, the chances of the students' withdrawing from the program are increased.

As noted in the preceding chapter, counselors are frequently cited as having potential impact on the career selection of students, and recognition of the need to eliminate sexism in counseling is growing. Much less material is available on the role that vocational teachers play in perpetuating sex stereotypes (particularly occupational stereotypes) or on how they treat nontraditional students in their classes.

Role Models for Women

It has frequently been suggested that high school women need role models to help them make career choices. The lack of women in administrative positions in the secondary schools has been documented (see Chapter 2). The available statistics also suggest that female vocational teachers most often teach traditional female courses like office occupations, food service, and health occupations. An HEW survey of secondary vocational teachers shows the following allocations:

TABLE 7-1

Estimated Percentage Distributions of Vocational Teachers in Secondary Schools

Teaching Area	Male (Percent)	Female (Percent)
Home economics (homemaking)	1	99
Trades/industry	89	11
Office/business	28	72
Agriculture	100	--
Health	12	88
Technical education	90	10
Home economics (occupational)	2	98
Distributive education	77	23

Source: Vocational Education: Characteristics of Students and Staff, 1972, p. 37.

The absence of appropriate role models for females in traditional male vocational programs is evident. (Characteristics of teachers in the present study's sample are outlined in Table 7-2.)

Course Changes Resulting from Nontraditional Enrollments

The general consensus of the teachers was that no real changes have occurred in the objectives of the programs with the advent of nontraditional enrollees. One respondent indicated that he perceived the reverse, i.e., the objectives changed, then nontraditional students began to enroll in the courses (as a result of the changed objectives). It was also suggested by several teachers that the changing nature of some occupations has resulted in female enrollment in related programs. For example, in recent years vocational agriculture has shifted away from total emphasis on production agriculture to more teaching of agribusiness and other agriculture-related occupations. The printing industry has seen a shift away from the heavy dirty letterset method to offset printing, which utilizes typing skills. The implications are sexist, although perhaps reflective of a prevalent female preference for certain kinds of work, e.g., work which is not "heavy" or "dirty". Once the occupation becomes less dirty or strenuous, females may gravitate toward it. The teachers suggested that female enrollment in agriculture and printing should not be viewed as nontraditional since the features which made these occupations traditionally male are changing. Another

TABLE 7-2

Statistical Data for Teachers Interviewed
(n=34)

1. Sex:
Male 27
Female 7

2. Race:
White 28
Black 1
N.A. 5

3. Total number of males in all classes:
Avg. 37.2
Hi 110
Lo 1

4. Total number of females in all classes:
Avg. 25.0
Hi 120
Lo 6

5. Number of years of teaching:
Avg. 7.5
Hi 24
Lo 1

6. Number of years of work experience:*
Avg. 12.5
Hi 45
Lo 6 months

7. Permanent certification:
Yes 23
No 11

8. Married:
Yes 26
No 8

9. Spouse working outside the home:
Yes 12
No 14

10. School has advisory committee for occupational area:
Yes 22
No 11
N.A. 1

10a. Frequency of meeting:
N.A. 4
as needed 1
once or twice a year 6
3 or 4 times a year 5
monthly 6

10b. Presence of person(s) of nontraditional sex on committee:
Yes 8
No 12
N.A. 2

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*It may be that teachers' attitudes toward nontraditional enrollments are related to their prior employment experiences in the field. (For example, two teachers whose attitudes toward female enrollees were positive had supervised women in their respective fields [printing and civil technology] prior to their entering teaching.)

teacher suggested that while the objectives have remained the same in his course (livestock science), the focus of the course has changed with the entry of female students. One teacher indicated that female enrollment in traditional male programs has generated a consciousness of the sexist language used in writing course objectives.

Skill and Motivational Differences Between Female and Male Students

Skills. The teachers were asked about entry-level skills in use of hand tools, use of other tools and equipment, ability to read and understand technical instructions, drawings, etc., and knowledge of related mathematics. Very few of the teachers expected any entry-level skills, so this criterion cannot be used as a reason to exclude nontraditional students who may not have been exposed to such skills. Although the teachers were asked specifically about sex differences in entry-level skills, many of them took the opportunity to discuss other between-sex differences they perceived. Female students were considered more mature by some, more conscientious, more patient, more interested in getting good grades, better in basic academic skills, more developed in motor skills and thought processes. Some of these traits are those traditionally associated with females; it is impossible to determine from the responses whether these are traits that the teachers actually observed or traits which they assumed were present because of unconscious attitudes.

One teacher of a traditionally female course noted that male enrollees "take suggestions better." This suggests an interesting hypothesis, at least partially supported by some of the teacher responses to this question: that is, that nontraditional students have a "better attitude"--they try harder, act more mature, are more willing to "try something different." As for specific skills, teachers tended to agree that male students are more mechanically inclined and more capable of heavy lifting.

Motivation. More than half of the teachers saw no differences in the learning motivation of their female and male students, preferring to stress that differences are individual rather than sex-related. Of those eight who claimed females have more motivation, the following "proofs" were cited: females have a higher level of maturity, are more grade conscious, have more desire to learn, and are more attentive.

Positive and Negative Aspects of Having Female Students in a Traditional Male Vocational Program

None of the teachers openly objected to having a coeducational class. In fact, most of them were not encountering nontraditional students for the first time--all but two of the teachers who were interviewed had taught a few students of the nontraditional sex prior to 1974-75, although most noted that nontraditional enrollments had been increasing annually. For this reason, five of the teachers claimed the question about positive and negative aspects of co-ed classes was not applicable to them.

The answers of those who responded positively can be categorized as follows:

1. Preview of working world. E.g., a coed class presents a more realistic picture of the working world; lets students know they will compete for jobs with the opposite sex.

2. Performance level change. E.g., females increase class enthusiasm; set higher tone for class; increase competition; provide varied experiences and opinions in discussions.

3. Stereotyped views of females. E.g., females tend to keep a cleaner shop; females like to decorate for Christmas; females are clean and well groomed; the presence of females keeps the language cleaner (a notion advanced more than once); females provide a "calming" influence.

4. Sexual attraction. E.g., having girls in the classes attracts more boys (implication being that teachers prefer boys anyway); boys enjoy class more with females present.

Since the present study was not primarily concerned with males in nontraditional vocations, only a few teachers of traditional female classes were interviewed. Those who were indicated that the most positive aspects of having males present were that males are less sensitive about themselves; accept criticism more easily and are more realistic; provide varied experiences; and "the chivalry of males is nice."

Approximately one quarter of the teachers perceived some negative aspects of having females in their classes. The responses of three of these teachers can be placed in a "personal relations" category:

One cited "bathroom visitations," an apparent reference to meeting with boyfriends or girlfriends in the halls during class. The same teacher noted that girls have parental problems which they bring to class, and that girls talk about boyfriends but boys do not talk about girlfriends.

One teacher said that by attracting boys, girls create a problem of "relationships," although he added that he wouldn't have it any other way.

In one traditionally female class, the teacher found the males "too friendly."

Two other responses deal with the students' experiences in the world of work:

One teacher gave the same answer for both the most positive and most negative aspect of having female students in his class (printing): lets males know females will be competing for jobs.

In a traditionally female child care course, the teacher commented that more females than males in the class have career aspirations in the child care field and that the males' presence may keep out some girls who want to pursue careers in child care.

The remaining four responses defy classification:

One vocational agriculture teacher indicated that the males used to run the FFA program, but that females are now taking over and this affects leadership growth (of the males, obviously).

Another vocational agriculture teacher stated that with increased female enrollment, a "wider variety" of people is needed to teach the courses.

A teacher of upholstery cited the tendency of females to expect the males to carry the chairs and to do the heavy lifting.

A foods teacher cited "safety hazards" in jobs involving heavy lifting.

Recruitment of Students into Nontraditional Fields

One of the most important questions on the interview form--that which asked for recruitment suggestions--evoked some of the least developed answers. Few of the teachers who were interviewed had apparently given much thought to nontraditional enrollments in vocational programs. In fact, one teacher admitted, "I never thought about this until I heard your group [visiting team] was coming here." The suggestions which did emerge were of several kinds:

1. Girls should be recruited:

a. Send representatives from vocational schools to sending schools. (This is being done in most schools, but not with the express purpose of recruiting nontraditional students.)

b. Send vocational program representatives to elementary schools to talk about careers and career opportunities. (Some elementary school career programs are just starting, but it was not ascertained whether occupational opportunities for women are fully explored.)

c. Send females to recruit females--either adult women who are working in the occupation and could provide role models, or student enrollees to present their classroom experiences.

d. Work with counselors to change their attitudes and attitudes of female students.

2. Physical problems need to be overcome:

"If we had the space, all we would have to say would be 'You can take it.'" (At several of the sample schools, "space" seemed to be a problem in opening courses and encouraging females to enter traditional male programs, particularly auto mechanics. Under Title IX, this is clearly illegal.)

3. Stereotyped course titles should be changed:

"When we called the course bookkeeping, we rarely had any males become interested; when we called practically the same course accounting, male enrollments increased markedly." (This observation was made in agriculture and printing courses as well concerning increased female enrollments.)

4. Employers should take the initiative:

"Businesses must recognize their responsibility to hire females." "We need more requests from employers."

5. A good public relations program is needed:

   a. More publicity leading to occupational awareness is needed.
   b. More relevant information should be provided in course brochures.

Schools' Attitudes toward Nontraditional Enrollments

Teachers expressed the belief that "the general tone" in their schools was at best positive, or at worst neutral. None stated that schools deal negatively with this issue. Several suggested that some shops still resist female enrollments, but they implied that such resistance is isolated and associated with individual teachers. Visiting team members perceived neutrality or "benign neglect" on the part of the sample schools. Although few obvious attempts to restrict enrollment were observed, none of the schools appeared to have undertaken sustained positive efforts to increase nontraditional enrollments in vocational programs.

Placement of Nontraditional Students

Slightly over half of the teachers in the sample had tried to place a student of the nontraditional sex. Of those who had tried, the results were mixed (see Table 7-3).

TABLE 7-3

Teachers' Efforts to Place Nontraditional Students in Jobs

Field	Placement YES	Placement NO	Comments
vocational agriculture	1		not a problem of sex
		1	had difficulty; sexy appearance; conservative employer; "not girls' work"
architectural drawing		1	not hired, question of "newcomer" and "women" prejudices
TV production	1		fired after 1 week because of internal problem with personnel department, now trying to rehire her
printing	1		sometimes employers prefer females over males
lab printer (photography)	1		employers want females
civil technology	1		placed first one; gentleman wanted females
industrial chemistry	1		employers constantly calling--females acceptable for any job except heavy work
foods	1		females placed as early as males
upholstery		1	husband not willing for wife to work as manager of shop
marine environment occupations		1	tried only one--didn't get the job, limited job opportunities, finally placed as Boat Master (NT)
baking	1		employers usually ask for male help, but they'll take instructor's word if he recommends a female
soil science	1		employer favorably impressed
vocational electronics	1		employers like females and even ask for them

Attrition of Nontraditional Students

The teachers were asked whether any students had dropped out of their courses during the current year. The number of males, number of females, reasons given by the students, and reasons perceived by the teacher were ascertained.

This question was designed to elicit indications of student withdrawals because of difficulties associated with being of the nontraditional sex in a particular course. Either such pressures do not exist or the teachers interviewed do not perceive their existence. It might be hypothesized that pressures work to exclude the potential nontraditional students from the outset, i.e., such students do not enroll. The only disparity between stated reasons and "real" reasons for program dropouts perceived by teachers stemmed from unannounced pregnancies. ("She said she was moving to another school, but I think she was pregnant.")

Summary

This chapter has examined vocational teachers' responses to questions designed to determine their perceptions of and attitudes toward students of the nontraditional sex. Several general conclusions can be drawn from the data.

1. Most of the sample teachers do not regard the broad goals of equal access and equal opportunity for all students regardless of sex as issues of concern.

2. The teachers seem to have little awareness of how vocational education can maximize the probability of success for all students entering the work world. They seem to be particularly unaware of the problems of nontraditional women and men in vocational classes and the world of work. Because of this limited awareness, no active efforts are made to overcome the problems.

3. The teachers view the appearance of nontraditional students in their classes as something that "just happened" and they are now trying to accommodate to the situation. No efforts to recruit nontraditional students had been considered.

4. The teachers are affected by many of the long-held myths about sex differences. Despite Maccoby and Jacklin's study (and others) dispelling these myths (see Chapter 2), teachers still claim that female students keep the shops neater, themselves cleaner, the language purer, etc. They seem to regard these as givens rather than the products of socialization.*

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*Because the survey instrument did not include any attitudinal questions, teachers' attitudes about appropriate roles for women were derived from their responses to such questions as those about the most positive and negative aspects of having females in their classes.

5. Sample teachers did not exhibit any active resistance to learning about the changing roles of women. As noted of counselors in Chapter 6, teachers might also benefit from participation in short-term workshops or inservice training sessions.

The teachers generally perceived no direct relationship between the objectives of their courses and the sex of the enrollees. Very few of the teachers expected any entry-level skills, so these do not appear to constitute a barrier to nontraditional enrollments. The teachers did, however, perceive between-sex differences--not in skills, but in attitudes and traits.

Some of the positive features of having females in traditional male vocational classes which the teachers cited were: they provide male students with a more realistic preview of the working world, and their presence results in heightened performance in the classes--the result of increased competition and diverse experiences and opinions. Approximately one-quarter of the teachers perceived some negative aspects to having females in their classes. Most of these could be placed in a "personal relations" category, e.g., physical attraction.

Finally, the teachers were asked for recruitment suggestions. Their responses included: (1) active recruiting of females via trips to sending schools, sending representatives to elementary schools, using females to recruit females; (2) changing course titles to be nonstereotyped; (3) encouraging employers to take the initiative; and (4) developing a good public relations program.

PART V
POST-GRADUATION EMPLOYMENT

CHAPTER 8

EMPLOYMENT EXPERIENCES FOLLOWING HIGH SCHOOL

Introduction

Many of the main criteria for evaluating the effectiveness of vocational training are based on the experiences vocational students have when they enter the labor market. Labor force experiences take on special meaning for females who follow programs that are not traditional for their sex. Are females able to find jobs that allow them to use the skills they study? The analyses presented in this chapter are addressed to this and related questions about labor force experiences.

The chapter is organized around the themes of labor force participation, including months employed, wages, job/training relatedness, and satisfaction with high school preparation. In general, the data do not suggest that taking nontraditional courses had any major impact on the work histories of the respondents, either females or males. There was some evidence that nontraditional students tended to enter different types of occupations than traditional students. Only among males, however, was the tendency to enter nontraditional occupations statistically significant. Few significant differences were found between traditional and nontraditional students with regard to months of employment, wages, job satisfaction, and educational satisfaction. These general findings are discussed in detail below.

Before presenting these findings, however, a few words about the data are needed. The data focus mainly on the first regular full-time jobs which the respondents obtained after high school. The questionnaire which the respondents completed (Appendix B-6) asked them to report on three jobs: their first regular job, the job held for the longest time, and their current or most recent job. A large proportion of the respondents (79 percent) provided information on their first regular jobs, but far fewer provided additional information on their longest jobs (16 percent) and their current jobs (20 percent). Most of those who did not provide additional information indicated that their first regular jobs were also their longest jobs and their current jobs. In other words, since they have left high school, most of the respondents have had only one regular, full-time job. Since the number of respondents who provided information for the other jobs is much smaller, far less confidence can be put in the results obtained for these respondents. Consequently, the analyses in this chapter are mainly limited to first jobs.

Furthermore, since this report emphasizes comparisons between students who take traditional and nontraditional vocational courses while in high school, students not classified on this dimension are not included. The definition of 'traditional' or 'nontraditional' is based on the proportion of each sex that customarily takes the courses. It is necessary, therefore, to present the results separated for each sex. A small number of respondents, however--five males and sixteen females, or 6 percent of the total sample--took courses that could not be classified as either traditional or nontraditional. These respondents are not included in the tables presented in this chapter.

Labor Force Participation

Employment Status

About half to three-quarters of the former students who returned questionnaires were in the labor force when they were surveyed. The question used to determine labor force status was based on the Bureau of Labor Statistics definition. The question asked what the respondent was doing "most of last week" and listed the activities shown in Table 8-1.

As is usually found, labor force participation was higher for males than for females. Although one might expect greater commitment to careers among nontraditional females, their participation rate was lower than that of traditional females. Taking nontraditional courses did not appear to be associated with increased unemployment. In fact, the unemployment rate for nontraditional females was the lowest for all four groups, but these differences were not statistically significant.

The overall unemployment rate for all four groups was 9 percent, only slightly higher than the national average during July through October 1975 when the survey was conducted. During that period, the national average was 8.4 percent (U.S. Department of Labor), and 19.8 percent for workers sixteen to nineteen years of age. Considering that the average age of the respondents was 19.6 years, 9 percent unemployment does not seem particularly high.

The data in Table 8-1 refer to the labor force status of the respondents during the week preceding the completion of the questionnaire. The respondents also reported, in reply to another question, the number of months they had spent in various activities since leaving high school. These activities are listed in Table 8-2, together with the percentage of respondents who spent at least one month in the activity and the means and standard deviations for the months reported.

The interpretation of the percentages in Table 8-2 is fairly straightforward. They indicate the proportions of each group which engaged in the various activities for at least one month. For example, among the nontraditional females, three out of four (77 percent) held

TABLE 8-1

Labor Force Status of Former Students During Week Preceding Completion of Questionnaire by Sex and Traditional/Nontraditional Enrollment

Labor Force Status	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
In the labor force	51[a]	67	75	73
Working full-time (35 hours or more)	41	47	64	64
Working part-time	7	12	4	2
Temporary lay-off from job	0	0	4	1
Looking for work	3	8	4	6
Out of labor force	49	33	25	27
Attending school	16	10	11	14
Housewife or housekeeper	18	12	4	0
Military service	0	1	4	7
Illness, injury	1	0	0	2
Other	14	10	7	3
Base Number	95	83	28	122
Unemployment rate in percent	6%	12%	10%	9%
Base Number for unemployment (Former students in the labor force)	49	56	21	89

[a] Proportion of nontraditional females in the labor force is significantly lower ($p < .04$) than proportion of traditional females.

Activities Former Students Reported Engaging in for One Month or Longer After High School, by Sex and Traditional/Nontraditional Enrollment

Activities Lasting One Month or Longer	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
Percent working 35 hours or more a week	77%	69%	76%	86%
Mean months of activity	11.13	9.93	12.31	15.37
Standard deviation	11.17	11.03	9.96	12.21
Percent attending school or college full-time	52%	51%	59%	52%
Mean months of activity	7.73	6.38	7.62	6.73
Standard deviation	10.23	9.08	9.58	8.74
Percent unemployed looking for work	35%	32%	34%	30%
Mean months of activity	1.64	2.68	1.55	1.18
Standard deviation	3.35	5.66	3.22	2.99
Percent keeping house, not holding a job	18%	12%	0%	0%
Mean months of activity	1.92	1.13	.00	.00
Standard deviation	5.36	3.56	.00	.00
Percent unable to work due to sickness, injury	10%	4%	10%	10%
Mean months of activity	.40	.31	.21	.46
Standard deviation	1.55	2.62	.68	2.13
Percent on active duty with military	0%	1%	7%	7%
Mean months of activity	.00	.04	.72	.89
Standard deviation	.00	.33	2.96	3.47
Mean months out of high school	23.84	23.15	22.79	23.83
Sum of mean months of activities	22.82	20.47	22.41	24.63
Proportion of months out of high school accounted for by activities reported	.96	.88	.98	1.03
Base Number for means and percents	95	84	29	126

a full-time job, half (52 percent) attended school or college full-time, and one-third (35 percent) were unemployed and looking for work.

The means are a little trickier to interpret. The means reflect how the months after the respondents left high school were spent in various activities. They are the sum of the months reported by the respondents in the four groups divided by the number of respondents in those groups. They reflect, then, the average way the respondents in the separate groups allocated the total number of months available to them after they left high school. The means could be said to represent a mythical "average" former student. For example, the average nontraditional female has been out of school two years (23.8 months). During this time she spent approximately half of these months (11.1) working at a full-time job; one-third of them (7.7 months) attending school; and the remainder unemployed because she was keeping house (1.9 months), could not find a job (1.6 months), or was too sick to work (.4 months).

It should be noted that while interpreting the means in terms of an average student does show the relative distribution of the activities of all of the students in a particular group, such an interpretation does not do justice to the reality of the experiences of individual students. The few students who were homemakers or who entered the military usually spent many months in these activities. However, because the months they reported were averaged with all the other students who did not engage in these activities, the means calculated for these activities are low.

Having said this, the point of most importance for the present study is that none of the differences between traditional and nontraditional students was statistically significant. The average pattern of post-high school activities was quite consistent across groups. Even the patterns for males and females, with the exceptions of housekeeping and military service, were quite similar. Having taken nontraditional courses while in high school does not seem to lead to different types of post-high school activities.

Another point of interest is that the months respondents reported having spent in the six major activities listed in Table 8-2 accounted, overall, for 97 percent of the months the respondents had been out of school. This single question yielded a very good, and apparently accurate, summary of the major post-high school activities of the respondents.

Types of Jobs Obtained

The types of jobs the respondents obtained upon leaving high school are shown in Table 8-3. The respondents were asked to report on their first regular job, defined as, "One you expected to keep, not a seasonal or part-time job." Jobs at which the respondents worked for thirty hours or less per week were not included in the analysis.

TABLE 8-3

Type of First Regular Job Former Students Obtained After High School by Sex and Traditional/Nontraditional Enrollment

Types of Job	Females		Males	
	Non-traditional	Traditional	Non-traditional	Traditional
	%	%	%	%
Professional, technical	14[a]	0	4[a]	5
Sales	8	5	21	8
Clerical	27	40	25	4
Skilled Work	1	0	8	12
Semi-skilled (apprentices)	25	19	12	46
Service workers	21	36	21	7
Unskilled	0	0	4	3
Farm Work	3	0	4	12
Base Number	71	63	24	104

[a] Types of jobs held by traditional and nontraditional former students differ significantly, females $p < .01$; males $p < .001$.

Significant differences were found in the types of jobs traditional and nontraditional students obtained. Nontraditional females were more likely to have professional-technical and semi-skilled jobs and less likely to be in clerical and service jobs. Nontraditional males were more likely to be in sales, clerical, and service jobs and less likely to be in semi-skilled and farm jobs.

To determine if students who had taken nontraditional courses in school also obtained nontraditional jobs, it was first necessary to classify the jobs as traditional or nontraditional. To do this, a definition similar to that used to classify vocational courses as traditional or nontraditional was adopted--nontraditional jobs are those in which workers of one sex represent a distinct minority. For occupations, the standard used to define traditional and nontraditional was the one suggested by The Ohio State University's longitudinal studies of labor market behavior: the proportion of the total civilian labor force that is made up of females, plus and minus 5 percent.[1] That is, females represented 38 percent of the total labor force in 1974. Occupations in which they made up 43 percent or more of the total workers (38 percent plus 5 percent) were considered to be traditional female occupations. Occupations in which they represented 33 percent or less of the total workers were considered nontraditional for females. The labeling for males was just the reverse--a nontraditional female occupation was a traditional male one and vice-versa. Occupations in which females make up between 34 and 42 percent of the work force were considered nonclassifiable--neither traditional nor nontraditional for males or females. Once the occupations were classified, it was possible to compare the courses the students had taken with the kinds of jobs they obtained. Table 8-4 shows the results of this comparison.

Male students who had taken nontraditional courses were more likely to obtain nontraditional jobs than were their female counterparts. The difference between traditional and nontraditional male students was significant; the difference between female students was not.

Whatever the reasons that prevented female students from obtaining nontraditional jobs, employer prejudice against women was not seen as a major reason by the students themselves. The respondents were asked what problems they had encountered in seeking the kinds of jobs they wanted. Most of the problems listed in Table 8-5 were included in the questionnaire and the respondents were free to check any or all of them.

As Table 8-5 shows, sex discrimination was certainly not obvious to any significant number of the respondents. The problems the respondents reported were fairly consistent across all four groups and referred mainly to the availability of desirable jobs and the competition for them.

Relatedness of Training to Jobs

Besides the traditional/nontraditional comparison of courses and jobs, two additional methods were used to test whether students obtained jobs that used the skills they studied. The first was simply to ask the student to rate the degree of relationship. The second was to

TABLE 8-4

First Regular Job Classified as Traditional or Nontraditional Compared to Traditional and Nontraditional Courses Taken by Former Students by Sex

Job Classification	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Nontraditional for each sex	35	19	54[a]	22
Traditional for each sex	59	76	42	73
Unclassified	6	5	4	5
Base Number	71	63	24	104

[a] Males who took courses which were nontraditional were significantly more likely to obtain jobs which were nontraditional for their sex ($p < .01$).

TABLE 8-5

Problems Former Students Encountered in Obtaining Chosen Jobs, by Sex and Traditional/Nontraditional Enrollment

Problems	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%[a]	%	%	%
Many others seeking same jobs	36	35	38	25
Have not completed school, training	13	8	14	8
Have not been able to pay for education, training	11	11	0	11
Have had to leave home area	6	8	7	12
No jobs available, none I like	5	11	7	7
Have not been able to meet requirements such as grades, test scores	4	4	0	4
Have not been accepted by employers because of my sex	4	1	0	2
Too young for job, age discrimination	3	2	10	1
Have not been able to pay for tools, equipment	2	1	0	4
Other	3	4	0	6
Base Number	95	84	29	126

[a] These figures do not sum to 100 percent. Each figure represents the percentage of all respondents in the respective categories that reported encountering the problems listed. Any one student could check all, some, or none of the problems.

compare directly the courses taken in school to the type of first regular job obtained. To conduct this comparison, the occupations were classified using a code that was keyed to the code used to classify vocational courses. The results from these two procedures are shown in Tables 8-6 and 8-7.

Table 8-6 reports the students' own ratings on a four point scale. Table 8-7 reports the ratings by a research analyst as to the similarity between the coded courses and jobs. In making these ratings it was usually quite easy to rate those courses and jobs that were the same or highly similar. For example, a student who took secretarial courses and became a secretary would be rated "same." The difficulty came in trying to distinguish between "slightly" and "not at all." What should the rating be for a student who studied drafting and whose first job was as a carpenter's assistant? Presumably, the training in drafting should be helpful in reading blueprints, taking measurements, and making calculations, but is this sufficient to justify a "slightly related" rating? Because of the difficulty of making such distinctions, the "slightly" and "not at all" ratings were combined; and since there were very few "highly related" ratings, these were combined with "same."

The respondents whose courses and jobs could not be rated as to similarity were mainly those who did not study an occupational skill in high school, or those who entered jobs that could not be classified on the job code keyed to vocational education courses. This second group included respondents who entered military service. Although there is some disagreement between the tables, neither the students' nor the analyst's ratings are too encouraging. At best, they suggest that one-third or less of the first regular jobs that vocational students obtained were highly related to the skills they studied, and they do not indicate that the nontraditional students were any more or less successful than traditional students in finding training-related jobs.

The final method used to assess the relationship between high school courses and jobs obtained was a direct rating of high school preparation. The ratings were made on the four-level scale shown in Table 8-8.

In general, the ratings in Table 8-8 are quite similar to those in Table 8-6. About one-third or less of the respondents in each of the groups rated their preparation "good" or "excellent." Approximately the same proportion rated their jobs "the same" or "highly related" to the occupational areas they studied in high school. The correlation between the ratings of relatedness and preparation is presented in Table 8-12 in the following section. The correlation between them is .69, indicating a strong tendency for respondents who obtained jobs that were related to their training to rate that training favorably.

TABLE 8-6

Former Students' Ratings of Relationship Between First Regular Job and Occupational Area Studied in High School by Sex and Traditional/Nontraditional Enrollment

Ratings of Relatedness	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Job same as occupational area studied	20	10	10	20
Job highly related to occupational area studied	10	14	5	16
Job slightly related to occupational area studied	22	24	25	19
Job not at all related to occupational area studied	49	52	60	45
Base Number[a]	51	59	20	89

[a] This table is limited to those students who reported studying an occupational area in high school.

TABLE 8-7

Former Students' Ratings of Similarity Between High School Courses and First Regular Job by Sex and Traditional/Nontraditional Enrollment

Ratings of Similarity	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Job the same or highly similar to courses studied	17	11	29	25
Job slightly or not at all similar to courses studied	78	80	58	67
Cannot rate similarity	4	9	12	8
Base Number	69	56	24	88

TABLE 8-8

Former Students' Ratings of High School Preparation for First Regular Job by Sex and Traditional/Nontraditional Enrollment

Ratings of High School Preparation	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Excellent preparation	10	9	0	8
Good preparation	27	15	33	24
Fair preparation	17	35	27	27
Poor or no preparation	46	41	40	41
Base Number[a]	48	46	15	85

[a] This table is limited to those students who reported taking high school courses that included training for jobs.

Satisfaction with Jobs and Education

Obtaining a job that was related to the skills studied in high school did not seem to have much effect upon how satisfied the respondents were with these jobs, or even with their education. As Table 8-9 shows, about three-fourths of the respondents in each of the groups reported that they were satisfied or very satisfied with their first regular job.

When the respondents were asked to rate their overall satisfaction with the education they received in high school (Table 8-10), the pattern was similar to their ratings of job satisfaction. A minority of one-quarter or less were dissatisfied or very dissatisfied, and the most common response was "satisfied."

In addition to overall satisfaction with education, the respondents were also asked to rate how hard their high school tried to prepare them for when they left school. The pattern of response was, once again, quite similar to that evoked by the questions about satisfaction (see Table 8-11).

Two sets of data thus appear to be in contradiction. On the one hand, only one-third or less of the respondents in the four groups found jobs that were the same as or highly related to the skills they studied in high school, and about the same proportion rated their high school preparation for these jobs as good or excellent. On the other hand, three-quarters or more of the respondents were satisfied or very satisfied with their jobs and with the education and preparation they had received in high school. Clearly, when the respondents made these general evaluations of their education, the degree to which they had been prepared for jobs was not a major influence on their responses.[2]

This point was made even more clearly by an intercorrelation of the various ratings. The correlations presented in Table 8-12 are based only on matched pairs of observations. In other words, a respondent had to have answered both of the items to be included in the calculation of the correlation between those items. The numbers upon which the correlations are based are presented in the upper triangle. Virtually all of the total sample (99 percent) responded to the educational items, but only 78 percent, those who had at least one regular job after high school, rated their satisfaction with their jobs, and only 58 percent rated how well their education prepared them for these jobs. (The 20 percent who did not rate their preparation reported that their courses did not include training for jobs.)

The highest correlation in the table, $\underline{r} = .69$, reflects the degree to which respondents were able to obtain jobs related to the skills they studied. Those workers who found such jobs tended to rate their preparation favorably. All but two of the other correlations are statistically significant, but only a few show a strong association.

TABLE 8-9

Former Students' Overall Satisfaction with First Regular Job After High School by Sex and Traditional/Nontraditional Enrollment

Satisfaction Rating	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Very satisfied	27	27	38	34
Satisfied	47	48	54	43
Dissatisfied	17	16	8	16
Very dissatisfied	10	10	0	7
Base Number	71	63	24	104

TABLE 8-10

Former Students' Overall Satisfaction with High School Education by Sex and Traditional/Nontraditional Enrollment

Satisfaction Rating	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Very satisfied	16	20	17	18
Satisfied	41	34	45	42
Neutral, neither satisfied nor dissatisfied	21	32	31	29
Dissatisfied	18	10	7	9
Very dissatisfied	4	4	0	2
Base Number	95	84	29	126

TABLE 8-11

Former Students' Ratings of Efforts Made by High School "To Give You the Preparation You Needed When You Left High School" by Sex and Traditional/Nontraditional Enrollment

Ratings of Effort Made by High School	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
School tried very hard	16	13	14	16
School tried hard	31	40	38	40
School tried a little	32	26	38	25
School did not try very much	16	16	7	14
School did not try at all	5	5	3	5
Base Number	94	83	29	126

TABLE 8-12

Correlations of Ratings of High School Preparation, Job-Training Relatedness and Job Satisfaction of All Former Students Who Responded to Questions

		ST	YT	SS	SC	JR	TP	JS
How hard school tried to give preparation needed	(ST)		330	333	330	218	193	262
How hard you tried to get preparation needed	(YT)	.33		332	329	219	194	261
Overall satisfaction with high school preparation	(SS)	.48	.25		332	219	194	263
Would you choose same courses again	(SC)	.16	.18	.36		218	193	261
How related is job to occupational area studied	(JR)	.21	.22	.22	.18		180	219
How well did high school training prepare you for job	(TP)	.38	.31	.42	.25	.69		194
Overall satisfaction with job	(JS)	.09*	.10*	.19	.15	.35	.27	

Note: Correlation coefficients are shown below the diagonal; the number of paired observations on which they are based are shown above the diagonal.

*All the coefficients are significant at the .05 level or less except those marked with an asterisk.

The two coefficients that are not significant compare the ratings of job satisfaction with school preparation. Their lack of correlation indicates that the degree to which respondents liked their first regular jobs was not at all associated with their general feelings about their high school preparation. In fact, job satisfaction was only moderately associated ($\underline{r} = .27$) with their ratings of preparation for these specific jobs.

Other Indicators

In addition to the subjective ratings of relatedness and satisfaction, information was also collected on more objective dimensions of job experience such as months and hours worked, and wages. These indices are summarized in Table 8-13.

Table 8-13 shows clear sex differences, with males significantly higher on most of the variables. There are no differences, however, between the traditional and nontraditional students of each sex.

In addition to the tabular analyses presented above, multiple regression analyses were conducted on many of the measures of job experience. Multiple regression is essentially a way of testing at one time the effects of several independent variables upon a specified dependent variable. For example, many other variables besides the curriculum students took in school could influence the wage rates they received. Some of these other variables are the location in which the students looked for jobs (urban or rural), their race or color, and their father's occupation. These variables, together with father's and mother's education and classification of school attended as vocational or comprehensive, were entered as independent variables into an equation and regressed against the following dependent variables:

1. Months of full-time employment, and
2. Employment status during week preceding completion of questionnaire.

The following all apply to first regular job:

3. Months employed,
4. Starting wage,
5. Leaving (or current) wage,
6. Rating of job/training relatedness,
7. Rating of high school preparation, and
8. Rating of job satisfaction.

The basic point of these analyses was to determine if the traditional/nontraditional variable had a significant relationship with these dependent variables when the effects of the other independent

TABLE 8-13

Months Employed, Wages, and Hours Worked In First Regular Job After High School, by Sex and Traditional/Nontraditional Enrollment

Employment Indices	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
Months employed: Mean	11.28	10.87	17.00	18.24
Standard Deviation	12.04	9.93	13.33	16.70
Starting wage: Mean	$ 2.07	$ 2.00	$ 2.47	$2.53
Standard Deviation	.71	.44	1.12	.84
Current (or leaving) wage: Mean	$ 2.34	$ 2.14	$ 2.62	$3.00
Standard Deviation	.92	.46	.82	1.07
Hours worked per week: Mean	41.09	40.90	45.96	45.34
Standard Deviation	7.74	10.12	12.50	11.89
Number[a]	56-69	55-63	17-24	74-101

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[a] Number varies because not all respondents answered all questions. Largest incidence of no answers occurred on current or leaving wage. Other means are based on numbers quite similar to largest number shown.

variables were held constant. Since the definitions of traditional and nontraditional differed for the males and females, the sexes were analyzed separately. Of the sixteen regressions, eight for each sex, the traditional/nontraditional classification was significant in only one of the equations, and this was for males. When other variables in the equations were held constant, nontraditional males rated their job satisfaction higher than the traditional males. However, the overall equation was not significant, so little confidence can be placed in the values obtained for the separate variables in the equation.

An equation that yielded overall significance and almost reached significance on the traditional/nontraditional variable is shown in Table 8-14.

Table 8-14 is presented to demonstrate the manner in which the variables in the equation interact to influence the net regression coefficients obtained for each variable. Each of these coefficients is an estimate of the effect of each independent variable upon the dependent variable, holding the other variables in the equation constant. In the final form of the equation shown in the table, only school location is significant. Respondents who graduated from schools in rural locations were very likely to have received lower leaving (or current) wages on their first regular jobs. The sixty respondents included in the equation received an average leaving wage of $3.01 per hour.[3] The leaving wage for respondents from rural high schools was ninety cents lower.

When the color variable was not included in the equation, the traditional/nontraditional variable was significant and showed that nontraditional students received seventy-six cents less per hour than traditional students. However, when the color variable was added, the traditional/nontraditional variable was no longer significant, because color was significantly correlated with having taken nontraditional courses ($\underline{r} = .38$). Nonwhites also tended (nonsignificantly in the total equation) to receive lower leaving wages. When the intercorrelation of color and the traditional/nontraditional classification was controlled, neither alone had a significant relationship with leaving wage.

The overall conclusion from the sixteen multiple regressions is very similar to that from the cross-tabulations analyses--having taken traditional or nontraditional courses appears to have relatively little influence on employment experiences following high school.

One nagging question remains from the results presented above: Why do most respondents report themselves to be satisfied with their jobs and with their general high school preparation, but not satisfied with the specific preparation for the jobs they obtained?

TABLE 8-14

Multiple Regression Analysis of Current (or Leaving) Wage, Males Only

Independent Variables with Coding for Equation	Satisfaction Rating	
	Regression Coefficient	Standard Error
Nontraditional-traditional courses (NT = 1, T = 0)	-.56	.38
Father's occupation		
Professional, technical managerial (P,T,M = 1, Other = 0)	-.10	.40
Sales, clerical, skilled worker (S,C,SW = 1, Other = 0)	.12	.44
Semi-skilled, protective-personal service (SS,P/PS = 1, Other = 0)	.29	.46
All others (All others = 0)	I	
Color (White = 1, Other = 0)	.56	.54
School location (Urban = 1, Rural = 0)	-.90**	.29
Comprehensive or vocational school (Comp = 1, Voc = 0)	NE	
Father's education (eight point scale, none to grad. school)	NE	
Mother's education (eight point scale, none to grad. school)	NE	
Intercept	3.01	
Dependent variable: Mean	3.01	
Standard Deviation	1.12	
Multiple correlation coefficient $(\bar{R})^c$	.36*	
Coefficient of determination $(\bar{R}^2)^c$	.13	
Number of observations	60	

Note: *Net regression coefficient significant at .05 level (two-tail test).

**Net regression coefficient significant at .01 level (two-tail test).

[a] I = Intercept, these observations entered into intercept value.

[b] NE = Not Entered, F value for regression coefficient < 1.00.

[c] Corrected for degrees of freedom.

One possible explanation is that the respondents do not hold their schools responsible for placing them in jobs that are related to the skills they studied. If they find such jobs, they are much more likely to be satisfied with the training they received in high school, but finding related jobs seems to be viewed as an individual responsibility. Table 8-15 indicates that relatively few of the respondents found their first regular jobs through their high schools. The most common means of locating jobs were by making direct contacts with employers and following referrals of friends and relatives.

A more direct explanation for dissatisfaction with specific training is simply that the respondents, for the most part, had positive feelings about their high school years which were reflected in their general ratings of their education. When the ratings referred to specific jobs, however, their general attitudes were less important than the degree of relationship between the jobs and the training they had received.

Whatever the explanation, the crucial point for the present study is, once again, the almost complete lack of significant differences between the traditional and nontraditional students, especially the females. In only one of the tables relating school to work did the traditional and nontraditional females differ--nontraditional students of both sexes tended to get different types of jobs. Females who took nontraditional courses, however, were not more likely to obtain nontraditional jobs; males were. Nontraditional males may have sought such jobs more actively, for they were more likely than traditional males to have learned of their first regular jobs through direct contact with employers or through their high schools. Except for these few differences, the nontraditional students appear to have had much the same job experiences and to have similar attitudes about their jobs and their preparation for them as the traditional students.

This lack of significant differences can be viewed as a positive finding. The nontraditional students did not have more successful job experiences, but neither did they penalize themselves by taking courses which were unusual for their sex. This itself is a very important finding. No evidence from this study indicates that students who wish to take nontraditional courses should be informed, or warned, that they are likely to have a hard time finding jobs. (Keep in mind that the present study's sample was not strongly nontraditional.) The evidence indicates that nontraditional students are, indeed, likely to have a hard time finding jobs that use the skills they study, but so do students who take traditional courses. Overall, the job experiences of students who study nontraditional courses probably does not differ very much from the experiences of traditional students.

TABLE 8-15

How Former Students Learned of Availability of First Regular Job, by Sex and Traditional/Nontraditional Enrollment

How learned of job	Females		Males	
	Nontraditional	Traditional	Nontraditional	Traditional
	%	%	%	%
Contacted employer	29	22	41[a]	12
Friend or relative	25	43	27	67
Advertisement	19	13	4	10
From high school representative	14	13	23	1
State employment service	6	7	0	1
Private employment agency	3	2	0	1
Other	4	0	4	2
Base Number	69	60	22	101

[a] Ways in which traditional and nontraditional former students learned of jobs differ significantly among males ($p < .03$).

Summary

Few significant differences emerged between traditional and nontraditional students with regard to their employment experiences after being graduated from high school. More males than females were in the labor force in the year following graduation; the rate of unemployment was comparable for all groups, and the overall pattern of post-high-school activity was consistent across all of the groups.

Nontraditional females were more likely to have professional-technical and semi-skilled jobs and less likely to hold clerical and service jobs. Nontraditional males were more likely to have sales, clerical, and service jobs than semi-skilled or farm jobs. Males who took nontraditional courses were more likely to find nontraditional jobs; females were not. Students did not report sex discrimination as a problem in obtaining the type of job they desired.

Only about one-third of the graduates found jobs that were highly related to their courses of study. Nontraditional students were no more and no less successful than others in finding related jobs. About three-quarters of all the students were satisfied with their first regular jobs, although only about one-third rated their preparation for those jobs as good or excellent--about the same number as obtained employment that was related to their high school preparation. Most of the respondents were, however, satisfied with the overall training they received in high school apart from preparation for a specific job.

Having taken nontraditional courses while in high school appears to have little relationship to employment experiences following high school. This may be a positive finding, because although nontraditional students did not have more positive employment experiences, neither were they penalized for their participation in vocational programs which were unusual for their sex.

FOOTNOTES

[1] U.S. Department of Labor, Dual Careers, vol. 3 (Washington D.C.: Manpower Administration, Monograph 21, 1975), p. 22.

[2] The educational ratings in Tables 8-1 to 8-11 are based on the total sample. The job ratings are limited to those who held jobs. A separate analysis was made of the educational ratings of only those who held jobs. The response patterns in this smaller sample did not differ significantly from the total sample.

[3] This sample is smaller than that used to calculate the mean wages shown in Table 8-13 because only respondents for whom complete data were available were included in the regression analysis.

APPENDIX A

TWO PROJECTS DESIGNED TO ELIMINATE SEX STEREOTYPING

PROJECT EVE*

In 1975, the Division of Occupational Research and Development of the Texas Education Agency funded a model program for Texas schools to eliminate "the effects of past discrimination in trade and industrial (T&I) vocational programs." The demonstration school for this project was Sam Houston High School. In the year preceding the start of Project EVE (Equal Vocational Education), there were no females enrolled in any of the five traditional male vocational courses taught at the selected school.

The objective of this project was to develop a model which could be used by other school districts in Texas to increase and maintain female enrollment in nontraditional vocational programs. (An original plan to recruit males for traditional female vocational programs had to be abandoned because of limited resources and because the problems are probably not the same for both sexes.)

The project model included: (1) providing information to all female students at the school about the educational and career opportunities available to them through vocational education; (2) recruiting females into traditional male vocational classes; (3) establishing support services for females who enrolled in these programs; (4) informing school staff, parents, and the general community about the career opportunities in these fields and women's ability to perform in nontraditional jobs; and finally, (5) improving the image of vocational education in order for it to be seen by students, parents, and teachers as a viable alternative to the academic program at the school.

During the first year of the project (1975-76), five females at the school enrolled in traditional male courses; during the second year (1976-77), fifteen females were enrolled (two of them in the second year of their programs).

Contact with project staff during the fall of 1976 revealed uncertainty over the continued funding of this project by the Texas Education Agency.

NEW PIONEERS PROJECT**

In North Carolina, a program was instituted in 1974 to eliminate sex bias in vocational education programs throughout that state. The basic objective of the North Carolina program (called "New Pioneers") was to broaden occupational education opportunities for women and men by devising strategies for attracting students to nontraditional courses of study.

Enrollment changes in secondary and postsecondary programs in North Carolina increased dramatically during the two years following the program's initiation: statewide in 1976, almost 1,000 more females were enrolled in agriculture, 700 more in trade and industrial courses (including 77 more in bricklaying and 136 more in carpentry); and 1,300 more males were enrolled in home economics programs.

The core of the project consisted of state, regional, and local workshops conducted by project personnel for counselors and directors of occupational education. In addition, eight districts developed "model programs" for nontraditional students.

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[*] Jane Lerner, Fredell Bergstrom, and Joseph E. Champagne, EVE: Equal Vocational Education (Houston, Texas: Center for Human Resources, The University of Houston, 1976).

[**] The Federal Education Project Newsletter, the Lawyers' Committee for Civil Rights under Law, May 1976.

APPENDIX B

QUESTIONNAIRES

The Pennsylvania State University
Institute for Research on Human Resources

WOMEN
in Traditional Male
Vocational Programs

APPENDIX B-1
PRELIMINARY DATA FORM
(Confidential: For Research Purposes Only)

Person completing form ______________________________ Title ______________________

General Information

School ______________________________________ District ____________________

Address ______________________________________ Telephone ____________________

______________________________________ Counties in district ________

Type of school:

Comprehensive ☐ Area Vocational-Technical ☐

Number of vocational programs offered (e.g., welding, production agriculture) __________

	Full-time		Part-time	
Staff	Male	Female	Male	Female
Number of teaching faculty:	____	____	____	____
Number of administrators:	____	____	____	____
Number of counselors:	____	____	____	____
Number of placement officers:	____	____	____	____

Racial origin of staff: White ____ Black ____ Hispanic ____ Native American __ Other ____

- -

"Traditional male vocational programs" are those in which the vast majority of students and workers in the occupational area are males.

1. Have you conducted any recruitment program to bring female students into traditional male vocational programs? ☐ No ☐ Yes → What methods have you used? (Please attach any materials available.)____

____

____

____

2. Do you anticipate conducting any recruitment programs to bring female students into these programs? ☐ No ☐ Yes → What methods will be used? ____________________

____

____

____

3. What are the major obstacles to bringing female students into these programs? __________

____

____

____

For comprehensive school, please turn to page 2.

For area vocational-technical school, please turn to page 3.

Comprehensive Schools:

Number of full-time faculty involved exclusively with vocational programs.

_____ Male _____ Female

Number of part-time faculty involved exclusively with vocational programs.

_____ Male _____ Female

Total enrollment of this school:

	Male	Female
9th grade	____	_____
10th grade	____	_____
11th grade	____	_____
12th grade	____	_____

Vocational program enrollment of this school (if a student is enrolled in more than one program, count only once):

	Male	Female
9th grade	____	_____
10th grade	____	_____
11th grade	____	_____
12th grade	____	_____

Estimated racial origin of total student body:

White	_____%
Black	_____%
Hispanic	_____%
Native American	_____%
Other	_____%

Estimated racial origin of vocational program student body:

White	_____%
Black	_____%
Hispanic	_____%
Native American	_____%
Other	_____%

Budget

(If data are not readily available, please try to have estimates prepared for site visit.)

Total amount budgeted for this school for 1974-75	$ ________
Total amount budgeted for vocational education program for 1974-75	$ ________
Estimated amount of budget used both for voc. ed./non voc. ed. in 1974-75*	$ ________
Estimated amount of budget used only for non voc. ed. in 1974-75	$ ________

Vocational education program fund sources: Local __________%

State __________%

Direct Federal __________%

*This would include instructional costs for classes which both vocational and non-vocational students attend, a proportion of administrative costs, guidance costs, etc.

Please turn to page 4

Area Vocational-Technical Schools:

Number of sending schools served by this school: ____________

Total population of these sending schools:

	Males	Females
9th grade	_____	_____
10th grade	_____	_____
11th grade	_____	_____
12th grade	_____	_____

Total enrollment of this school:

	Males	Females
9th grade	_____	_____
10th grade	_____	_____
11th grade	_____	_____
12th grade	_____	_____

Estimated racial origins of students enrolled in this school:

White ____% Black ____% Hispanic ____% Native American ____% Other ____%

Do your students attend full-time _____ or part-time _____ ?

If part-time, is the schedule:

_____ half day

_____ alternate days

_____ alternate weeks

_____ other (specify) ____

____

Budget

(If data are not readily available, please try to have estimates prepared for site visit.)

Estimated total budget of sending schools (combined) for 1974-75 $ ________

Total budget of this school for 1974-75 $ ________

Vocational education program fund sources: Local ________%

State ________%

Direct Federal ________%

Please turn to page 4

The following questions refer specifically to the program listed below.

Title of program ______________________________

Program Instructors: ______________________________

What are the objectives of this program? (If a written statement of objectives is available, please attach.) ______________________________

____

____

____

____

List any selection criteria used to admit students to the program. ______________

____

____

Typical occupations for which program prepares students. ______________

____

Hours of instruction each year of program:

				Enrollment 1974-75			
				Original		Present	
Year	Classroom	Laboratory (Shop)	Total Weeks	Male	Female	Male	Female
1 (9th grade)							
2 (10th grade)							
3 (11th grade)							
4 (12th grade)							

Number of persons completing program last year: Male _____ Female _____

Who is responsible for placing graduates of this program?

placement officer ☐ counselor ☐ teacher ☐ other (specify) __________

Has your school attempted to place females from this program?

☐ No ☐ Yes → What were the results of this effort? ______________

____

____

____

____

____

The Pennsylvania State University
Institute for Research on Human Resources

WOMEN
in Traditional Male
Vocational Programs

PURPOSE OF STUDY

Our Institute is conducting a study of selected vocational education programs. As part of this study we are interviewing students, members of the professional staff, and of the community in the selected districts.

The interview is basically concerned with the effects of students entering vocational programs which are not traditional for their sex.

Please sign your name on the line below to indicate your willingness to be interviewed. Even after signing your name you still may decline to answer any question or you may stop the interview at any point.

If you agree to participate, all information you provide will be held in strict confidence and will be used only for research purposes by the Institute.

Signature________________________________ Date____________________

Printed Name____

High School____

The Pennsylvania State University
Institute for Research on Human Resources

WOMEN
in Traditional Male
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Signature________________________________ Date____________________

Printed Name____

High School____

he Pennsylvania State University
nstitute for Research on Human Resources

WOMEN
in Traditional Male
Vocational Programs

APPENDIX B-2
TEACHER INTERVIEW GUIDE
(Class with Females in Traditional Male Program)

nstructor________________________ Interviewer________________________

chool________________________ District________________________

ddress________________________ Telephone________________________

________________________ Date of interview________________________

Background

. First I would like to get a little background on you and the courses you teach.

(BY OBSERVATION) Sex: M F Race: W B H NA O

a. What courses do you usually teach? ________________________

____

b. In total approximately how many male students______and female students______do you have in all your classes?

c. How many years have you been teaching? ______

d. How many years of work experience have you had in the occupational area in which you teach?_______

e. Do you have permanent certification in your area?

☐ Yes ☐ No → ee. Approximately what percent of the certification requirements have you completed? __________%

f. Are you married?

☐ Yes ☐ No → SKIP to next section.

g. Does your spouse work outside the home?

☐ No ☐ Yes → gg. What kind of work does he/she do? ________________________

____

Nontraditional Course

our course(s) in ________________________has been identified as having several females who re preparing for an occupational area that has traditionally been predominately male. We ould like to ask you some questions about having female students in this course.

. What program is(are) this course(s) a part of? ________________________

. What are the objectives of this program? (If a written statement of objectives is available, please attach.)________________________

____

____

____

4. Have the objectives of the program changed at all since females began to enroll?
☐ No ☐ Yes → a. In what way? ______

5. What are some typical occupations for which this program prepares students? ______

6. What material is covered in the first few weeks of the first year of the program? ______

7. What level of skill do you expect the average student to have reached by the end of the program? ______

8. Now speaking specifically of your course in ______, what level of skill do you expect of new students in this course with regard to--

a. Use of hand tools? ______

b. Use of other tools and equipment? ______

c. Ability to read and understand technical instructions, drawings, etc? ______

d. Knowledge of related mathematics? ______

e. Knowledge of related scientific principles? ______

9. In your judgment, are female students any different from male students on these skills?

☐ No ☐ Yes → a. In what ways? ______

10. Have you made any changes in course content since you have females in the class?

☐ No ☐ Yes → a. What changes? ______

11. Have you found yourself teaching this course differently since there are females in the class?

☐ No ☐ Yes → a. How? ______

12. How have male students reacted to having females in this course? ______

13. How many male and female students are there in the class at the present time?

Male______ Female______

14. Have any students dropped out of the course this year?

☐ Yes ☐ No → SKIP to Q 15.

a. How many males dropped out? ______

b. How many females dropped out? ______

c. What reasons did they give for dropping out? ______

14. Continued

d. What do you think were the reasons? ____________________

____

____

____

15. Have you ever had female students in this course before?

☐ No ☐ Yes → a. How many and for how many years? ____________________

____

16. Have you personally made any effort(s) to attract females to your courses?

☐ No ☐ Yes → a. What have you done? ____________________

____

____

17. How would you rate the learning motivation of the female students compared to the male students? Are the females more motivated_____, less motivated_____, or is there no difference_____? (Comment)____________________

____

____

____

18. In general, do the females get along with the males in class?

☐ No ☐ Yes → (Comment)____________________

____

____

19. Does having females in the class cause any special problems in control?

☐ No ☐ Yes → (Comment)____________________

____

____

20. Do the female students seem to prevent any control problems you had when the course was all male?

☐ No ☐ Yes → (Comment)____________________

____

____

21. What would you say are the most positive aspects of having female students in this class

____

____

____

22. What are the most negative aspects of having female students in this class? ____________

____

____

____

23. Are these positive and negative aspects different from your experiences with male students?

☐ No ☐ Yes → a. In what ways? ____________

____

____

24. Overall, would you like to see more______, less______, or the same number______ of females in your classes? (Comment)____________

____

____

____

(IF MORE) a. Do you have any ideas on how more female students might be recruited into nontraditional areas? ____________

____

____

Advisory Committee, Community

25. Does the school have an advisory committee for your occupational area?

☐ Yes ☐ No → SKIP to Q 26.

↓

a. How often does the committee meet? ____________

b. How helpful has it been in planning the curriculum? ____________

____

____

____

c. Are there any females on the committee?

☐ No ☐ Yes → cc. How many? ____________

d. Has the issue of females in this occupational area ever been discussed?

☐ No ☐ Yes → dd. What aspects were discussed? ____________

____

____

____

26. What do you think is the general tone in the school regarding females in traditional male occupations? ____________

____

____

27. What particular obstacles do you foresee for females in this occupation? ____________

____

____

____

28. How involved do you get in placing students from this program in jobs? ____________

____

____

____

a. Have you ever tried to place a female student?

☐ No ☐ Yes → aa. How did potential employers react? ____________

____

____

____

____

Notes: ____

____

____

____

____

____

____

POST-INTERVIEW IMPRESSIONS

(BY OBSERVATION)

Female Participation in Class:

1. Did the female students seem to be involved in all of the class activities?

   ☐ Yes ☐ No If no, explain.______________________________

   ____

2. Were female students scattered throughout the shop? ☐ Yes ☐ No If no, explain?______________________________

   ____

3. Were there any particular tasks which female students were doing which males did not seem to be performing? ☐ No ☐ Yes If yes, list some. ______________________________

   ____

Teacher Reaction to Female Students in the Class:

4. Did the teacher seem to make any distinction in his/her treatment of the females in the class? ☐ No ☐ Yes If yes, discuss.____

   ____

5. Did you get the feeling that in this class the teacher views the girls and the boys equally? ☐ Yes ☐ No If no, explain._____

   ____

6. Do you think that this teacher has been aware of the issue of sexism? ☐ No ☐ Yes If yes, what is his/her attitude toward the issue? ______________________________

   ____

7. Do you think this teacher sees sexism as a present or potential issue in this class? ☐ No ☐ Yes

8. Do you think that this teacher expects equal performance from all students in the class? ☐ Yes ☐ No

he Pennsylvania State University
nstitute for Research on Human Resources

WOMEN
in Traditional Male
Vocational Programs

APPENDIX B-3
COUNSELOR INTERVIEW GUIDE

ounselor________________________	Interviewer________________________
chool________________________	District________________________
ddress________________________	Telephone________________________
________________________	Date of interview________________________

. First I would like to get a little background on you and your job.

(BY OBSERVATION) Sex: M F Race: W B H NA O

a. How many years have you been employed in education? ______

b. How many years have you been a counselor? ______

c. Do you have state certification in counseling? ☐ Yes ☐ No

d. Have you ever worked full-time in an occupational area other than education?

☐ No ☐ Yes → dd. What areas have you worked in? ________________________

____

____

e. Are you a full-time____ or part-time____ counselor? (If part-time) How much of your time is devoted to counseling? ______%

*Ask counselor to complete questions 2 and 3 (last page of guide), noting name.

. Do you counsel a particular group of students? ☐ No ☐ Yes → a. Which group? ___

____

. How many students do you counsel? ________

. On the average, how often do you meet with each of your students during the year? ______

. Please estimate the average length of a meeting. ________________________

. What do you personally consider to be the main responsibilities of a counselor? ______

____

____

____

____

. Do you think this is consistent with what is expected of you in this school?

☐ Yes ☐ No → Could you exlain? ________________________

____

____

____

____

10. What do you think should be the role of the counselor in job placement? ____________________

11. Do you ever feel like a discipline or truant officer?
☐ No ☐ Yes → Explain. ____________________

Activities of School and School District

12. What are some of the activities your school and school district conduct to assist studen
in their vocational development and vocational choices? ____________________

(PROBES, IF NOT MENTIONED)	Yes	No
a. Does school have career programs for students?	( )	(
b. Does school have career programs for parents?	( )	(
c. Does school have evening/summer career-related conferences involving parents?	( )	(
d. Does school provide group counseling on occupations?	( )	(
(IF YES) dd. Are separate groups held for male and female students? . .	( )	(
e. Does school bring potential employers from the community into the school?	( )	(
f. Is there a systematic program in the district to introduce materials about careers and the world of work in elementary school?	( )	(

13. Does your school have advisory committees for any of its occupational areas?
☐ No ☐ Yes → a. Do you have any personal contact with these committies? ☐ Yes ☐ N
b. (IF YES) Type and frequency of contact? ____________________

14. How much chance do you have to work with teachers regarding vocational opportunities for students? ____________________

4. Continued

a. Are there any vocational areas where the teachers tend to resist working with you?

Guidance Materials

5. Do you administer or use any vocational interest or vocational preference inventories in your work with students?

☐ Yes ☐ No → SKIP to Q 16.

a. What inventories are used? ____________________

b. At what grade(s) are they administered? ____________________

c. Are separate forms used for males and females? ☐ Yes ☐ No

d. Are the inventories given to all students_____or only selected ones_____?

e. How useful are these inventories in counseling students? ____________________

6. How would you evaluate the adequacy of the vocational guidance materials available to you? (PROBE regarding currency, thoroughness, utility to students, extent of sexual stereotyping.)____________________

17. Do you have any guidance materials that encourage females to seek careers in the trades or other traditional male occupations?

☐ No ☐ Yes → a. What are some of these materials?

b. If such material is (or was) available, how do (or would) you use i

c. Do you have any guidance materials that encourage males to seek careers in the trades or other traditional female occupations?

Student Vocational Choices

18. What are the occupational areas in which female students most often indicate an interest

18a. What are the occupational areas in which male students most often indicate an interest?

19. What are some areas in which females almost never indicate an interest?

19a. What are some areas in which males almost never indicate an interest?

20. What are some of the reasons female students tend to give as the basis of their career interests?

20a. What are some of the reasons male students tend to give as the basis of their career interests?

21. In your judgment what is the strongest influence on the career interests of young women?

21a. In your judgment what is the strongest influence on the career interests in young men?

Students in Nontraditional Classes

When a student expresses an interest in a nontraditional occupational area--that is, an area that is usually not considered appropriate for his or her sex--what are some of the things you discuss with him or her concerning that occupation? ____________________

____

____

Is there a tendency for particular types of students to express interest in nontraditional occupational areas?

☐ No ☐ Yes → a. How would you describe these students? ____________________

____

____

____

Do students ever report that they would not consider certain occupations because of parental resistance?

☐ No ☐ Yes → a. What are some of these occupations? ____________________

____

____

b. In cases such as these, do you ever meet with the parents concerned?

☐ No ☐ Yes → bb. How do parents respond to such meetings? ______

____

____

Do you encourage students to consider career options not traditionally associated with their sex? ☐ No ☐ Yes

26. Do you ever discourage students from taking any courses because of their sex?

☐ No ☐ Yes → a. What are some of your reasons?

27. Does your school conduct any special programs (e.g., workshops on family relationships, career aspiration, role model seminars) to help overcome sexual stereotypes?

☐ No ☐ Yes → a. Who attends these programs?

b. What do you think has been the overall effect of these efforts?

28. Do female students in nontraditional occupational classes cause any special problems?

☐ No ☐ Yes → Explain

a. If there are problems, what has been done to deal with the situation?

b. Would you say the problems and possible solutions are the same for male students in occupational classes that are not traditional for males?

☐ No ☐ Yes → Explain

Community

29. Has sexism in school programs ever been raised as an issue in this community?

☐ No ☐ Yes → a. What group(s) raised the issue?

b. How did they raise the issue?

0. What is the typical work pattern of girls who leave your school? ____________________

____

____

____

1. What % of married women in your community hold regular jobs outside the home? ________

____

2. What is (or do you expect) to be the community reaction to students working in nontraditional occupations? ____

____

____

Notes: ____

____

____

____

____

____

____

____

Counselor_______________________School___________________________

2. Please estimate the percent of your time that is spent in the following activities. (Estimates should total 100%)

_____ keeping records
______conducting interviews and conferences with students and parents
______administering tests
______handling disciplinary problems
______consulting with teachers and other school staff
_____ meeting with potential employers
______other (specify) ____

3. Of the time you spend counseling with students, what percentage would you estimate is spent in the following activities. (Estimates should total 100%)

______helping students select courses and programs of study
______helping students make post-secondary educational plans
______helping students make post-secondary vocational plans
______dealing with emotional/personal problems
______dealing with academic problems
______other (specify)_______________________________________

The Pennsylvania
State University
University Park,
Pennsylvania

INSTITUTE FOR RESEARCH ON HUMAN RESOURCES

1855

APPENDIX B-4

STUDENT ATTITUDES, EXPERIENCES, AND CAREER PLANS

Directions: Your high school is cooperating in a nationwide study of student attitudes, experiences, and career plans. You have been selected as a representative of all other students in the United States who are in special kinds of programs. Your answers are important.

We hope you will answer every question. Most can be answered by placing an "X" or checkmark (✓) in the box that best reflects your own experiences or attitudes. There are no right or wrong answers. Your answers will be held in strict confidence and revealed to no one outside the research staff.

Please sign your name on the following line to indicate your willingness to take part in this study. Even after signing your name, you still may decline to answer any question you do not wish to answer or at any point you may decide not to continue any further.

Signed Name______________________________ Date______________________________

Printed Name______________________________ High School______________________________

Home Address______________________________ Vocational-Technical School______________________

______________________________ ☐ Do not attend vocational-technical school.

PRIZE NUMBER ☐ PRIZE NUMBER

[Card 1 2-6]

IMPORTANT INFORMATION

The number in this box enters you in the drawing for the prizes to be awarded to participants in this study. Make a record of this number. If you are a winner, a check will be sent directly to your home. Be sure you have entered your correct home address.

CONFIDENTIAL: FOR RESEARCH USE ONLY

BACKGROUND INFORMATION

1. What is your age?
[7]
1 ☐ 15 or younger
2 ☐ 16 years of age
3 ☐ 17 years of age
4 ☐ 18 years of age
5 ☐ 19 years of age
6 ☐ 20 or older

2. What is your sex?
[8]
☐ Male 1
☐ Female 2

3. What grade are you in?
[9]
1 ☐ 9th grade
2 ☐ 10th grade
3 ☐ 11th grade
4 ☐ 12th grade

4. Are you currently taking any of the following kinds of courses? (If more than one, check major or main one.)
[10]
1 ☐ Business, office or commercial courses such as bookkeeping, stenography, office practice
2 ☐ Distributive education courses such as marketing, banking, wholesaling
3 ☐ Health courses such as medical-dental technician, nurses aide
4 ☐ Occupational home economics such as food service, interior decorating, child care
5 ☐ Trade and industrial courses such as auto mechanics, welding, carpentry
6 ☐ Technical courses such as electronics, industrial chemistry
7 ☐ Agricultural courses such as horticulture, crop production
8 ☐ Not taking any of these courses

5. How many brothers and sisters do you have?

	Brothers	Sisters
Older	______ [11]	______ [12]
Younger	______ [13]	______ [14]

6. What is the usual occupation of your father (or the male head of your household)? What kind of work does he usually do?
[15-16]

____

____

00 ☐ There is no male head of the household SKIP TO QUESTION 11
98 ☐ Father usually cannot work
99 ☐ I don't know

7. Approximately how many hours a week does your father (or male head of household) usually work? ______ [17-18]

8. Does your father (or male head) belong to a union?
[19]
☐ Yes 1
☐ No 2
☐ Don't know 3

9. What is the highest level of education your father (or male head) reached?
[20]
1 ☐ None, or some grade school
2 ☐ Completed grade school, 6th grade
3 ☐ Some high school (7-12), but not a graduate
4 ☐ Graduated from high school
5 ☐ Vocational or business school after high school
6 ☐ Some college, but not a graduate
7 ☐ Graduated from regular 4-year college
8 ☐ Graduate or professional school after college
9 ☐ I don't know

10. Does your father (or male head) do community work (such as Lions club, volunteer fireman, Boy Scout leader, etc.)?
[21]
☐ No 0
☐ Yes → Approximately how many hours per week? ______

11. How many of the years that you have been in school has your mother (or the female head of your household) held a regular job outside of the house? (By "regular" we mean a full-time or part-time job at which she worked at least six months per year.)
[22]

1 ☐ 1 to 2 years 4 ☐ 7 to 8 years
2 ☐ 3 to 4 years 5 ☐ 9 to 10 years
3 ☐ 5 to 6 years 6 ☐ 11 to 12 years
0 ☐ There is no female head of household--SKIP to Question 16
9 ☐ Mother never held a regular job SKIP to Question 14

12. What is the usual occupation of your mother (or female head of household)?
[23-24]

____

____

13. Approximately how many hours a week does your mother (or female head of household) usually work? ________
[25-26]

[27] a. Does your mother (or female head) belong to a union?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

14. What is the highest level of education your mother (or female head) reached?
[28]

1 ☐ None, or some grade school
2 ☐ Completed grade school, 6th grade
3 ☐ Some high school (7-12), but not a graduate
4 ☐ Graduated from high school
5 ☐ Vocational or business school after high school
6 ☐ Some college, but not a graduate
7 ☐ Graduated from regular 4-year college
8 ☐ Graduate or professional school after college
9 ☐ I don't know

15. Does your mother (or female head) do community work (such as Red Cross, hospital volunteer, or Girl Scout leader)?
[29]

0 ☐ No ☐ Yes → Approximately how many hours per week? _______

16. Does your family have a daily newspaper delivered to your home?
[30]

1 ☐ Yes 2 ☐ No

17. How many magazines does your family subscribe to?
[31]

0 ☐ None 1 ☐ 1 - 2 2 ☐ 3 - 4 3 ☐ 5 or more

18. How many books are there in your home (not counting encyclopedias)?
[32]

1 ☐ None, or very few (0-10)
2 ☐ A few books (11-25)
3 ☐ One bookcase full (26-100)
4 ☐ Two bookcases full (101-250)
5 ☐ Three or four bookcases full (251-500)
6 ☐ A room full--a library (501 or more)

19. How many rooms are there in your home? (Not counting bathrooms, unfinished areas)
[33]

2 ☐ 2 or less 4 ☐ 4 rooms 6 ☐ 6 rooms
3 ☐ 3 rooms 5 ☐ 5 rooms 7 ☐ 7 or more

20. Check all of the following items that your family has. (Check all that apply)

[34] ☐ Automobile
[35] ☐ Automatic clothes washer
[36] ☐ Automatic clothes dryer
[37] ☐ Electric dishwasher
[38] ☐ Home food freezer (separate from refrigerator)
[39] ☐ Hi-fi or stereophonic set
[40] ☐ Desk at which you study
[41] ☐ Set of encylopedias
[42] ☐ Telephone

21. Listed below are some household tasks that must be done in most families. We would like you to indicate how often you, your mother (or the female head of your household), and your father (or the male head of your household) do these tasks. For example, the first task is "Carry out trash, garbage." If you always do this in your home, you would circle the "A". If you do it sometimes, you would circle the "S". If you never do it, you would circle the "N". After indicating how often you do these tasks, please indicate how often your mother and your father do them also. (If your mother or father does not live with you, skip those columns.)

A = Always S = Sometimes N = Never

How Often Do These Tasks

		You			Mother			Father		
		1	2	3	1	2	3	1	2	3
[43-45] a.	Carry out trash, garbage	A	S	N	A	S	N	A	S	N
[46-48] b.	Clean the house	A	S	N	A	S	N	A	S	N
[49-51] c.	Cook meals	A	S	N	A	S	N	A	S	N
[52-54] d.	Do the ironing	A	S	N	A	S	N	A	S	N
[55-57] e.	Do the laundry	A	S	N	A	S	N	A	S	N
[58-60] f.	Handle the family budget	A	S	N	A	S	N	A	S	N
[61-63] g.	Make beds	A	S	N	A	S	N	A	S	N
[64-66] h.	Make small repairs on the house.	A	S	N	A	S	N	A	S	N
[67-69] i.	Mend clothes, sew buttons . . .	A	S	N	A	S	N	A	S	N
[70-72] j.	Mow the lawn	A	S	N	A	S	N	A	S	N
[73-75] k.	Shop for groceries	A	S	N	A	S	N	A	S	N
[76-78] l.	Take care of family car	A	S	N	A	S	N	A	S	N
[Card 2 2-6]										
[7-9] m.	Take care of younger children .	A	S	N	A	S	N	A	S	N
[10-12] n.	Wash and dry dishes	A	S	N	A	S	N	A	S	N

22. Please check the kinds of toys you usually played with when you were a small child. (Check all that apply)

[13] ☐ BB Guns
[14] ☐ Blocks
[15] ☐ Building sets
[16] ☐ Doctors' kits
[17] ☐ Dolls
[18] ☐ Doll houses
[19] ☐ Electric trains
[20] ☐ Model kits (cars, etc.)
[21] ☐ Science kits
[22] ☐ Sports equipment
[23] ☐ Toy cars and trucks
[24] ☐ Toy dishes, pots and pans
[25] ☐ Toy tool kits
[26] ☐ Other (What?) ________

____

INFLUENCES ON CHOICE OF COURSE OF STUDY

23. Listed below are a number of experiences that sometimes influence people when they choose what they want to study in high school. Please indicate whether or not you ever had such experiences. If you did, please indicate how much they helped you to make your choice by circling one of these responses after each one.

NA = Not at all helpful
L = A little helpful

? = Undecided don't know

Q = Quite Helpful
VH = Very Helpful

	No	Yes	How Helpful				
	0		1	2	3	4	5
a. Did you ever take a course about careers which showed what [27] a variety of different occupations were like?	☐	☐ →	NA	L	?	Q	VH
b. Did you ever take a vocational interest test which indi- [28] cated the kinds of jobs you were likely to find interesting?	☐	☐ →	NA	L	?	Q	VH
c. Did you ever take a vocational aptitude test which indi- [29] cated the kinds of jobs you would find most suitable to your skills?	☐	☐ →	NA	L	?	Q	VH
d. Did you ever read material from the guidance department [30] or library that described various occupations?	☐	☐ →	NA	L	?	Q	VH
e. Did your school conduct any programs or activities de- [31] signed to describe to students what different courses of study were like?	☐	☐ →	NA	L	?	Q	VH
f. Did you ever discuss your choice of a course of study [32] with other students?	☐	☐ →	NA	L	?	Q	VH
g. Did you ever discuss your choice with your parents? [33]	☐	☐ →	NA	L	?	Q	VH
h. Did you ever discuss your choice with your brother, [34] sister, or other relatives?	☐	☐ →	NA	L	?	Q	VH
i. Did you ever discuss your choice with teachers? [35]	☐	☐ →	NA	L	?	Q	VH
j. Did you ever discuss your choice with a guidance [36] counselor?	☐	☐ →	NA	L	?	Q	VH
k. Did you ever have a part-time or summer job that [37] influenced your choice?	☐	☐ →	NA	L	?	Q	VH
l. Do you have any hobbies or leisure time activities [38] that influenced your choice?	☐	☐ →	NA	L	?	Q	VH

24. Who suggested that you take the course of study you are following? (Check all that apply)

1

[39] ☐ No one suggested

[40] ☐ Another student

[41] ☐ Parent

[42] ☐ Brother, sister, other relative

[43] ☐ Teacher

[44] ☐ Guidance counselor

[45] ☐ Other (Who?) ______________

____

25. Who had the most influence on your choice?
[46] (Check only one)

1 ☐ No one

2 ☐ Another student

3 ☐ Parent

4 ☐ Brother, sister, other relative

5 ☐ Teacher

6 ☐ Guidance counselor

7 ☐ Other (Who?) ______________

____

26. Was the program or course of study you are
[47] taking your first choice?

☐ Yes ☐ No
1 2

27. Is there any program or course of study you
[48-49] would have preferred to take if it had been available?

00 ☐ No

☐ Yes → a. What course of study?

____

____

28. Were you ever teased by other students be-
[50] cause of the course of study you chose?

☐ Yes ☐ No
1 2

29. Did you encounter any resistance or criticism when you decided to take your present course of study?

00 ☐ No, none

☐ Yes, from--(Check all that apply)

[51] ☐ Parents

[52] ☐ Brother, sister, other relative

[53] ☐ Female friends

[54] ☐ Male friends

[55] ☐ Teachers

[56] ☐ Counselors

[57] ☐ Others (Who?) ______________

____

30. How satisfied do you think your parents
[58] are with your choice of a course of study?

1 ☐ Very dissatisfied

2 ☐ Dissatisfied

3 ☐ Satisfied

4 ☐ Very satisfied

5 ☐ Undecided, don't know

31. What was the most important reason you
[59] chose the course of study you are now taking? (Check only one)

1 ☐ To be in same classes with friends

2 ☐ To prepare for employment

3 ☐ To prepare for college, business school, technical school, etc.

4 ☐ To satisfy parents

5 ☐ To study things of personal interest

6 ☐ To have easy courses

7 ☐ Followed suggestion of school

8 ☐ Undecided, don't know main reason

9 ☐ Other (Specify) ______________

____

SCHOOL EXPERIENCES AND ATTITUDES

32. Please check all of the school organizations or clubs of which you are an active member. (Check all that apply)

[60] ☐ School newspaper, magazine or yearbook

[61] ☐ Intramural sports--which play other teams from your own school

[62] ☐ Interscholastic sports--which play teams from other schools, cheerleaders

[63] ☐ Student government--such as student council, class officer

[64] ☐ Musical, dramatic, or debating clubs, band, glee club

[65] ☐ Subject matter clubs--such as history, science, mathematics or language clubs

[66] ☐ Service clubs--such as Tri-Hi-Y, School Booster Club

[67] ☐ Hobby clubs--such as photography, model building, chess, car clubs

[68] ☐ Vocational clubs--such as VICA, DECA, FHA, FBLA, 4-H, etc.

[69] ☐ Other (Specify) ____________________

33. Overall, how well do you like school?
[70]

1 ☐ Like it very much

2 ☐ Like it

3 ☐ Neutral, neither like it nor dislike it

4 ☐ Dislike it

5 ☐ Dislike it very much

34. How much are you learning from the courses
[71] you are taking this year?

1 ☐ I am learning nothing

2 ☐ I am learning little

3 ☐ I am learning an average amount

4 ☐ I am learning a lot

5 ☐ I am learning a great deal

35. How hard to you think your school is trying
[72] to give you the preparation you will need when you leave school?

1 ☐ School is trying very hard

2 ☐ School is trying hard

3 ☐ School is trying a little

4 ☐ School is not trying very much

5 ☐ School is not trying at all

36. How hard are you, yourself, trying to get
[73] the preparation you will need when you leave school?

1 ☐ I am trying very hard

2 ☐ I am trying hard

3 ☐ I am trying a little

4 ☐ I am not trying very much

5 ☐ I am not trying at all

37. How useful will the things you are studying
[74] be when you leave high school?

1 ☐ Not at all useful

2 ☐ A little useful

3 ☐ Somewhat useful

4 ☐ Quite useful

5 ☐ Very useful

38. Overall, how satisfied are you with the
[75] education you are receiving?

1 ☐ Very satisfied

2 ☐ Satisfied

3 ☐ Neutral, neither satisfied nor dissatisfied

4 ☐ Dissatisfied

5 ☐ Very dissatisfied

39. How good are your grades compared to
[76] other students?

1 ☐ Far above average

2 ☐ Above average

3 ☐ Slightly above average

4 ☐ Slightly below average

5 ☐ Below average

6 ☐ Far below average

40. How good a reader do you think you are
[77] compared to other students your age?

1 ☐ Far above average

2 ☐ Above average

3 ☐ Slightly above average

4 ☐ Slightly below average

5 ☐ Below average

6 ☐ Far below average

41. Since you have been in high school, how
[78] often has a teacher made you report to the principal or discipline office because you were misbehaving in class?

☐ Never 0

☐ 1 or 2 times 1

☐ 3 or 4 times 2

☐ 5 or more times 3

42. Since you have been in high school, have
[79] you ever been suspended from school (not allowed to attend for a few days) because you broke a school rule?

☐ No 0 ☐ Yes → a. How many times? _____

43. Approximately how many days during this
[80] school year have you been truant (played "hooky")? (Remember all answers are confidential.)

0 ☐ None

1 ☐ 1 or 2 days

2 ☐ 3 or 4 days

3 ☐ 5 or 6 days

4 ☐ 7 or 8 days

5 ☐ 9 or more

[Card 3 2-6]

44. How often do you feel other students "look
[7] down" on you because of the courses you are taking?

1 ☐ Very often

2 ☐ Often

3 ☐ Sometimes

4 ☐ Rarely

5 ☐ Never

45. How often do you feel teachers "look down"
[8] on you because of the courses you are taking?

1 ☐ Very often

2 ☐ Often

3 ☐ Sometimes

4 ☐ Rarely

5 ☐ Never

46. During this school year (since September
[9] 1974) have you taken any courses that train you to obtain employment in regular occupations?

1 ☐ Took no such courses → SKIP to Question 62

2 ☐ Presently taking such courses

3 ☐ Took such courses but not in any at present
↓

[10-11] a. Why are you no longer taking these courses? ____________________

____

____

____

____

____

47. What is the title of the course(s) you are (were) taking? ____________________
[12-13]

____

____

48. [14] Approximately how many total hours per week do (did) you spend in class for these courses? (If you alternate weeks at a vo-tech school and your home school, estimate your weekly average. For example, if you take 30 hours of vocational classes one week and none the second week, your average would be 15 hours per week.)

1 ☐ 3 hours or less
2 ☐ 4 to 6 hours
3 ☐ 7 to 9 hours
4 ☐ 10 to 12 hours
5 ☐ 13 to 15 hours
6 ☐ 16 or more hours

49. Approximately how many male and how many female students are in these courses?

Number of males ______ [15-16], females ________ [17-18]

50. [19] How interesting are these courses?

1 ☐ Not at all interesting
2 ☐ A little interesting
3 ☐ Somewhat interesting
4 ☐ Quite interesting
5 ☐ Very interesting

51. [20] How difficult is it to understand the material covered in these courses?

1 ☐ Very easy to understand
2 ☐ Easy to understand
3 ☐ A little hard to understand
4 ☐ Hard to understand
5 ☐ Very hard to understand

52. [21] How hard do the teachers in these courses try to help you understand the material they cover?

1 ☐ Teachers try very hard
2 ☐ Teachers try hard
3 ☐ Teachers try a little
4 ☐ Teachers don't try very much
5 ☐ Teachers don't try at all

53. [22] How much do the teachers encourage you to learn?

1 ☐ Very encouraging
2 ☐ Encouraging
3 ☐ Neutral, neither encouraging nor discouraging
4 ☐ Discouraging
5 ☐ Very discouraging

54. [23] How friendly are the other students in these courses toward you?

1 ☐ Very friendly
2 ☐ Friendly
3 ☐ Neutral, neither friendly nor unfriendly
4 ☐ Unfriendly
5 ☐ Very unfriendly

55. Have you encountered any problems or difficulties in these course(s)? (Check all that apply)

[24] ☐ Lack of background in area
[25] ☐ Course material is boring, uninteresting
[26] ☐ Difficult subject matter
[27] ☐ Too much work required
[28] ☐ Attitude of teachers
[29] ☐ Attitude of other students
[30] ☐ Treated differently from other students
[31] ☐ Not learning anything
[32] ☐ Other (What?) ____________________

____

[33] ☐ No problems or difficulties

56. [34] Do you think the male students in these courses are really serious about learning the skills being taught?

☐ Yes 1 ☐ No 2 ☐ Undecided 3

57. [35] Do you think the female students in these courses are really serious about learning the skills being taught?

☐ Yes ☐ No ☐ Undecided
1 2 3

58. [36] Would you recommend these courses to male students?

☐ Yes ☐ No ☐ Undecided
1 2 3

59. [37] Would you recommend these courses to female students?

☐ Yes ☐ No ☐ Undecided
1 2 3

60. [38] Overall, how satisfied are you with the education you are receiving in these courses?

1☐ Very satisfied

2☐ Satisfied

3☐ Neutral, neither satisfied nor dissatisfied

4☐ Dissatisfied

5☐ Very dissatisfied

61. [39] If you had it to do over again, would you choose these courses?

☐ Yes ☐ No ☐ Undecided
1 2 3

62. Have you ever held a regular part-time or summer job? (By "regular job" we mean one you worked at outside your home, for five hours or more per week, for one month or longer. This includes voluntary jobs for which you aren't paid.)

☐ Yes ☐ No
↓ 0

a. [40] How many such jobs have you held? _______

b. [41-42] How many total months have you held such jobs? _______

c. [43] Were any of these school supervised (co-op) jobs?

☐ Yes ☐ No
1 2

FUTURE PLANS

63. [44] What are your main plans for when you leave high school? (Not including part-time or summer plans. For example, if you plan to work full-time and attend college part-time, check get a full-time job. If you plan to work in the summer and then go into military service, check military service.)

1☐ Get a full-time job

2☐ Attend vocational, technical or business school full-time

3☐ Attend college full-time

4☐ Go into military service

5☐ Be a housewife

6☐ Other (Specify) ______________________

7☐ Undecided, don't know

64. [45] After you have completed your education, how many years do you expect to hold a regular part-time or full-time job?

☐ 1 year or less 1	☐ 11 to 20 years 5
☐ 2 to 3 years 2	☐ 21 to 30 years 6
☐ 4 to 5 years 3	☐ 31 to 40 years 7
☐ 6 to 10 years 4	☐ 41 years or more 8

☐ No idea, can't estimate
9

65. [46] Do you think you will someday get married?

1☐ Yes 2☐ No 3☐ Undecided
↓

a. [47] How much do you think you will work after you are married?

1☐ Will not work after marriage

2☐ Will work until we have children

3☐ Will work until we have children and after children enter school

4☐ Will work all the time

5☐ Undecided, don't know

66. What kind of job do you hope to get after you finish your education? ______________

[48-49] ______________________________

99 ☐ Undecided → SKIP to Question 69

67. Do you personally know anyone who has
[50] the kind of job you hope to get?

☐ Yes ↓ ☐ No → SKIP to Question 68
0

a. Is this person -- ☐ Male ☐ Female
1 2

[51] b. What is the relationship of this person to you?

1 ☐ Friend

2 ☐ Parent

3 ☐ Brother, sister

4 ☐ Other relative (aunt, cousin, etc.)

5 ☐ Employer

6 ☐ Professional (teacher, doctor, etc.)

7 ☐ Other (Specify) ______________

68. What kind of problems do you think you may have getting the kind of job you want? (Check all that apply)

[52] ☐ May not be able to meet requirement such as grades, test scores, etc.

[53] ☐ Many others seeking same jobs

[54] ☐ May have to leave this area

[55] ☐ May not be accepted by employers because of my sex

[56] ☐ May not be able to pay for additional education, training

[57] ☐ May not be able to pay for necessary tools, equipment

[58] ☐ Expect no problems

[59] ☐ Other (What?) ______________

[60] ☐ Don't know if I will have any problems

69. If you could do anything in the world of work that you wanted to, what would you most like to do? ______________

[61-62] ______________________________

70. Did you ever think seriously about entering an occupation that is not traditional for your sex? (For example, a female becoming an auto mechanic or a male becoming a secretary.)

☐ Yes ↓ ☐ No → SKIP to Question 71
00

a. What occupation did you consider? ______

[63-64] ______________________________

b. Did you ever discuss the possibilities
[65] of entering this occupation with anyone?

1 ☐ No, never discussed it

2 ☐ Yes, discussed with--(Check all that apply)

1

[66] ☐ Another student

[67] ☐ Parent

[68] ☐ Brother, sister, other relative

[69] ☐ Teacher

[70] ☐ Guidance counselor

[71] ☐ Other (Who?) ______________

____

71. How much money per week do you think you will be making one year and five years after you finish your education?

	[72] a. One year	[73] b. Five years	
1	☐	☐	$100 or less
2	☐	☐	$101 to 140
3	☐	☐	$141 to 180
4	☐	☐	$181 to 220
5	☐	☐	$221 to 260
6	☐	☐	$261 to 300
7	☐	☐	$301 to 340
8	☐	☐	$341 or more
9	☐	☐	No idea, can't estimate

OPINIONS ABOUT SELF AND SOCIETY

72. Listed below are statements of how people feel about themselves and people's roles in society. Please read each statement, then indicate how much you agree or disagree with it by circling one of these responses:

SA = Strongly Agree
A = Agree
? = Undecided
SD = Strongly Disagree
D = Disagree

		1	2	3	4	5
[74] a.	Most girls become housewives and rarely work outside the home.	SA	A	?	D	SD
[75] b.	I am able to do things as well as most other people.	SA	A	?	D	SD
[76] c.	Most executive jobs can be handled better by men.	SA	A	?	D	SD
[77] d.	A woman must get married to feel completely fulfilled.	SA	A	?	D	SD
[78] e.	I have always felt pretty sure my life would work out the way I wanted it to.	SA	A	?	D	SD
[79] f.	Being a housewife just isn't enough to keep a woman happy.	SA	A	?	D	SD
[80] g.	Women should stick to "women's" jobs such as teaching, nursing, secretarial work and not compete with men.	SA	A	?	D	SD
[Card 4 2-6]						
[7] h.	I take a positive attitude toward myself.	SA	A	?	D	SD
[8] i.	I would rather decide things when they come up than always try to plan ahead.	SA	A	?	D	SD
[9] j.	A wife should devote a lot of her time to satisfying her husband.	SA	A	?	D	SD
[10] k.	Most women have a low estimate of their own ability to perform in difficult jobs.	SA	A	?	D	SD
[11] l.	A woman should be able to hold and be promoted in any job she prepares herself for.	SA	A	?	D	SD
[12] m.	All in all, I am inclined to feel that I am a failure.	SA	A	?	D	SD
[13] n.	I feel I do not have much to be proud of.	SA	A	?	D	SD
[14] o.	I nearly always feel pretty sure of myself even when people disagree with me.	SA	A	?	D	SD
[15] p.	A man ought to feel free to relax when he gets home from work.	SA	A	?	D	SD
[16] q.	Women should avoid politics and community activities and put more time into doing a better job with their own families.	SA	A	?	D	SD
[17] r.	I seem to be the kind of person that has more bad luck than good luck.	SA	A	?	D	SD
[18] s.	I feel that I have a number of good qualities.	SA	A	?	D	SD

SA = Strongly Agree ? = Undecided SD = Strongly Disagree
A = Agree D = Disagree

			1	2	3	4	5
[19]	t.	I wish I could have more respect for myself.	SA	A	?	D	SD
[20]	u.	It is difficult for a woman to have a career and still keep her femininity.	SA	A	?	D	SD
[21]	v.	Raising children is more a mother's job than a father's.	SA	A	?	D	SD
[22]	w.	I never have any trouble making up my mind about important decisions.	SA	A	?	D	SD
[23]	x.	Having a challenging job or career is as important for women as being a wife and mother.	SA	A	?	D	SD
[24]	y.	There's not much use for me to plan ahead because there's usually something that makes me change my plans.	SA	A	?	D	SD
[25]	z.	The employment of mothers leads to juvenile delinquency.	SA	A	?	D	SD
[26]	aa.	Most jobs can be done as well by women as men.	SA	A	?	D	SD
[27]	bb.	Except in special cases, the wife should do the cooking and housecleaning and the husband should provide the family with money.	SA	A	?	D	SD
[28]	cc.	I have often had the feeling that it's no use to try to get anywhere in this life.	SA	A	?	D	SD
[29]	dd.	There is nothing more fulfilling to a woman than the raising of her children.	SA	A	?	D	SD
[30]	ee.	At times I think I am no good at all.	SA	A	?	D	SD
[31]	ff.	If the husband is working to support the family, his wife has no right to expect him to work while he's home.	SA	A	?	D	SD
[32]	gg.	A man who helps around the kitchen is doing more than should be expected.	SA	A	?	D	SD
[33]	hh.	I certainly feel useless at times.	SA	A	?	D	SD
[34]	ii..	A woman's greatest natural ability lies in being a mother.	SA	A	?	D	SD
[35]	jj.	I have always felt that I have more willpower than most people have.	SA	A	?	D	SD
[36]	kk.	Women would rather work for men than other women.	SA	A	?	D	SD
[37]	ll.	I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	?	D	SD
[38]	mm.	College education is more important for men than for women.	SA	A	?	D	SD
[39]	nn.	A husband has more respect for his wife if she has a career.	SA	A	?	D	SD

THANK YOU VERY MUCH
FOR YOUR COOPERATION

The Pennsylvania State University
Institute for Research on Human Resources
University Park, Pennsylvania

1855

[Card 1 2-6]

HIGH SCHOOL AND AFTER

A STUDY OF HIGH SCHOOL EDUCATION AND POST-HIGH SCHOOL EXPERIENCES

CONFIDENTIAL: FOR RESEARCH USE ONLY

Directions: This questionnaire is about your high school education and your experience since leaving high school. It also contains some questions about your family background and the roles that men and women should play in the family and in jobs.

Most questions can be answered by putting an "X" or checkmark (✓) in the box that best reflects your own experiences or attitudes. You may decline to answer any question.

Please sign your name on the following line to indicate your willingness to participate in the study.

Signed Name ______________________________

Date ______________________________

Are you willing to have your high school release to Penn State your grade point average and an IQ or similar test score?

☐ Yes ☐ No

BACKGROUND INFORMATION

1. What is your age? _____
[7-8]

2. What is your sex? ☐ Male (1) ☐ Female (2)
[9]

3. What month and year did you graduate (or leave) high school?

Month ________________ [10-11] Year ________ [12-13]

a. How good were your high school grades compared to other students?
[14]

1 ☐ Well above average
2 ☐ Slightly above average
3 ☐ Slightly below average
4 ☐ Well below average

4. When you were in school, what was the usual occupation of your father (or the male head of your household)? What kind of work did he usually do?
[15-16]

____

____

00 ☐ While I was in school there was no male head of household

98 ☐ Father usually could not work while I was in school

99 ☐ I don't know

5. How many of the years while you were in school did your mother (or the female head of your household) have a regular job outside the house? (By "regular" we mean a full-time or part-time job at which she worked at least six months per year.)
[17]

1 ☐ 1 to 2 years
2 ☐ 3 to 4 years
3 ☐ 5 to 6 years
4 ☐ 7 to 8 years
5 ☐ 9 to 10 years
6 ☐ 11 to 12 years

0 ☐ While I was in school there was no female head of household
SKIP to Question 7

9 ☐ Mother never held a regular job
SKIP to Question 7

6. What was the usual occupation of mother (or female head of household) while you were in school?
[18-19]

____

____

7. What is the highest level of education your father (or male head) and mother (or female head) reached?

Father [20]
Mother [21]

1 ☐ ☐ None, or some grade school
2 ☐ ☐ Completed grade school, 6th grade
3 ☐ ☐ Some high school (7-12), but not a graduate
4 ☐ ☐ Graduated from high school
5 ☐ ☐ Vocational or business school after high school
6 ☐ ☐ Some college, but not a graduate
7 ☐ ☐ Graduated from regular 4-year college
8 ☐ ☐ Graduate or professional school after college
9 ☐ ☐ I don't know

8. Please check the kinds of toys you usually played with when you were a small child. (Check all that apply)

[22] ☐ BB Guns
[23] ☐ Blocks
[24] ☐ Building sets
[25] ☐ Doctors' kits
[26] ☐ Dolls
[27] ☐ Doll houses
[28] ☐ Electric trains
[29] ☐ Model kits (cars, ships, etc.)
☐ Science kits [30]
☐ Sports equipment [31]
☐ Toy cars, trucks [32]
☐ Toy dishes, pots and pans [33]
☐ Toy tool kits [34]
☐ Other (What?) ____
____
____________________ [35]

9. Please check each of the household tasks that you usually did in your home when you were still in high school? (Check all that apply)

[36] ☐ Carried out trash, garbage
[37] ☐ Cleaned the house
[38] ☐ Cooked meals
[39] ☐ Did the ironing
[40] ☐ Did the laundry
[41] ☐ Made beds
[42] ☐ Made small repairs on the house
[43] ☐ Mended clothes, sewed buttons
[44] ☐ Mowed the lawn
[45] ☐ Shopped for groceries
[46] ☐ Took care of family car
[47] ☐ Took care of younger children
[48] ☐ Washed and dried dishes

HIGH SCHOOL EXPERIENCES

---

10. While you were in high school did you take any courses that trained you to obtain employment in regular occupations? [49]

1 ☐ Yes 0 ☐ No → SKIP to Question 12

a. What was the title(s) of the course(s) you took? [50-53]

____

____

11. Did you encounter any problems or difficulties in these courses? (Check all that apply)

- [54] ☐ Lack of background in area
- [55] ☐ Course material was boring, uninteresting
- [56] ☐ Difficult subject matter
- [57] ☐ Too much work required
- [58] ☐ Attitude of teachers
- [59] ☐ Attitude of other students
- [60] ☐ Treated differently from other students
- [61] ☐ Did not learn anything
- [62] ☐ Other (What?) ____________________

12. [63] What was the most important reason you chose the course of study you took in high school? (Check only one)

- 1 ☐ To be in same classes with friends
- 2 ☐ To prepare for employment
- 3 ☐ To prepare for college, business school, technical school, etc.
- 4 ☐ To satisfy parents
- 5 ☐ To study things of personal interest
- 6 ☐ To have easy courses
- 7 ☐ Followed suggestion of school
- 8 ☐ Undecided, don't know main reason
- 9 ☐ Other (Specify) ________________

____

13. [64] How hard do you think your school tried to give you the preparation you needed when you left school?

- 1 ☐ School tried very hard
- 2 ☐ School tried hard
- 3 ☐ School tried a little
- 4 ☐ School did not try very much
- 5 ☐ School did not try at all

14. [65] How hard did you, yourself, try to get the preparation you needed when you left school?

- 1 ☐ I tried very hard
- 2 ☐ I tried hard
- 3 ☐ I tried a little
- 4 ☐ I did not try very much
- 5 ☐ I did not try at all

15. [66] Overall, how satisfied are you with the education you received in high school?

- 1 ☐ Very satisfied
- 2 ☐ Satisfied
- 3 ☐ Neutral, neither satisfied nor dissatisfied
- 4 ☐ Dissatisfied
- 5 ☐ Very dissatisfied

16. [67] If you had it to do over again, would you choose the courses you took again?

☐ Yes 1 ☐ No 2 ☐ Undecided 3

POST-HIGH SCHOOL EXPERIENCES

17. Since you have been out of high school, how many months have you--

	Months
a. Worked at a full-time job (35 hours or more a week)?	______ [68-69]
b. Attended school or college full-time?	______ [70-71]
c. Been unemployed and looking for work?	______ [72-73]
d. Been on active duty with the military?	______ [74-75]
e. Not had a job because you were keeping house?	______ [76-77]
f. Been unable to work due to sickness or injury?	______ [78-79]

18. What were you doing most of last week? (Check only one)
[80]

1 ☐ Working at a full-time job (35 hours or more a week)
2 ☐ Working at a part-time job
3 ☐ On temporary lay-off from a job
4 ☐ Looking for work
5 ☐ Going to school
6 ☐ Serving in the military
7 ☐ Keeping house
8 ☐ Unable to work because of illness, injury
9 ☐ Other (What?) ______________

____

[Card 2 2-6]

19. Please answer these questions for each of these jobs ⟶ If any of the jobs are the same, check the appropriate box and put your answers in only one column.	First Regular Job After High School	Job Held for Longest Time	Current or Most Recent Job
	(One you expected to keep, not a seasonal or part-time job.)	1 ☐ Same as first job [29]	1 ☐ Same as first job [52] 2 ☐ Same as longest job
a. What is (was) this job called?	[7-8]	[30-31]	[53-54]
b. What are (were) your main tasks on this job; what do (did) you do most of the time?	[9, 10]	[32, 33]	[55, 56]
c. What does (did) the employer you worked for make or do?	[11-12]	[34-35]	[57-58]
d. What month and year did you start and leave this job?	Start:Mo__ Yr__ [13-14] Leave:Mo__ Yr__	Start:Mo__ Yr__ [36-37] Leave:Mo__ Yr__	Start:Mo__ Yr__ [59-60] Leave:Mo__ Yr__

Question 19 continued on next page

19. (Continued)	First Regular Job After High School	Job Held for Longest Time	Current or Most Recent Job
e. What was your total starting and leaving (or current) wage or salary before any deductions for taxes, social security, etc.? If you received tips or other pay, estimate what you averaged.	[15-18] Starting: $________ hour/week/month (circle one) Leaving: [19-22] $________ hour/week/month	[38-41] Starting: $________ hour/week/month (circle one) Leaving: [42-45] $________ hour/week/month	[61-64] Starting: $________ hour/week/month (circle one) Leaving: [65-68] $________ hour/week/month
f. How many hours a week do (did) you usually work?	[23-24] ___hours per week	[46-47] ___hours per week	[69-70] ___hours per week
g. How related is (was) this job to the occupational area you studied in high school? 9 ☐ Did not study an occupational area in high school	1☐ Same as area [25] 2☐ Highly related 3☐ Slightly 4☐ Not at all	☐ Same as area [48] ☐ Highly related ☐ Slightly ☐ Not at all	☐ Same as area [71] ☐ Highly related ☐ Slightly ☐ Not at all
h. How well did your high school training prepare you for this job? 9 ☐ High school courses did not include training for jobs	1☐ Excellent preparation [26] 2☐ Good preparation 3☐ Fair preparation 4☐ Poor or no preparation	☐ Excellent preparation [49] ☐ Good preparation ☐ Fair preparation ☐ Poor or no preparation	☐ Excellent preparation [72] ☐ Good preparation ☐ Fair preparation ☐ Poor or no preparation
i. How did you find out this job was available?	[27]	[50]	[73]
j. Overall how satisfied are (were) you with this job? How well do (did) you like it?	1☐ Very satisfied [28] 2☐ Satisfied 3☐ Dissatisfied 4☐ Very dissatisfied	☐ Very satisfied [51] ☐ Satisfied ☐ Dissatisfied ☐ Very dissatisfied	☐ Very satisfied [74] ☐ Satisfied ☐ Dissatisfied ☐ Very dissatisfied

20. What kind of problems have you had in trying to get the kind of job you want? (Check all that apply)

[75] ☐ Have not been able to meet such requirements as grades, test scores

[76] ☐ Many others seeking same jobs

[77] ☐ Have had to leave home area

[78] ☐ Have not been accepted by employers because of my sex

[79] ☐ Have not been able to pay for education, training

[80] ☐ Have not been able to pay for tools, equipment

[Card 3 2-6]

[7] ☐ Other (What?) ________________

21. Did you ever take any educational or training programs after high school?
[8]

1 ☐ Yes ↓ 2 ☐ No → SKIP to 22

[9] a. Where did you take the training?

1 ☐ Employer, place of work

2 ☐ Community, 2-year college

3 ☐ 4-year college or university

4 ☐ Private business or technical school

5 ☐ Area vo-tech school

6 ☐ Military service

7 ☐ Other (Where?) ________________

b. What did the program train or prepare you for? ________________
[10-11]

____

FUTURE PLANS

22. What do you think you will be doing one year from now?

[12-13] ☐ Working → What kind of job?

____

[14-16] ☐ Attending school, college → What will you be studying? ________

____

[17] ☐ In military service

[18] ☐ Keeping house

[19-20] ☐ Other (What?) ________________

____

[21] ☐ Undecided, don't know

23. How much money per week do you think you will be making one year and five years from now?
[22-23]

One Year	Five Years
1 ☐	☐ $100 or less
2 ☐	☐ $101 to 140
3 ☐	☐ $141 to 180
4 ☐	☐ $181 to 220
5 ☐	☐ $221 to 260
6 ☐	☐ $261 to 300
7 ☐	☐ $301 to 340
8 ☐	☐ $341 to or more
9 ☐	☐ No idea, can't estimate

24. If you could do anything in the world of work that you wanted to, what would you most like to do?
[24-25]

____

ROLES OF MEN AND WOMEN

25. Listed below are some statements about the roles that men and women should play in society. Please read each statement, then indicate how much you agree or disagree with it by circling one of these responses:

SA = Strongly Agree
A = Agree
? = Undecided
SD = Strongly Disagree
D = Disagree

			1	2	3	4	5
[26]	a.	Most girls become housewives and rarely work outside the home . .	SA	A	?	D	SD
[27]	b.	Most executive jobs can be handled better by men	SA	A	?	D	SD
[28]	c.	A woman must get married to feel completely fulfilled	SA	A	?	D	SD
[29]	d.	Being a housewife just isn't enough to keep a woman happy	SA	A	?	D	SD
[30]	e.	Women should stick to "women's" jobs such as teaching, nursing, secretarial work and not compete with men	SA	A	?	D	SD
[31]	f.	A wife should devote a lot of her time to satisfying her husband.	SA	A	?	D	SD
[32]	g.	Most women have a low estimate of their own ability to perform in difficult jobs	SA	A	?	D	SD
[33]	h.	A woman should be able to hold and be promoted in any job she prepares herself for	SA	A	?	D	SD
[34]	i.	A man ought to feel free to relax when he gets home from work . .	SA	A	?	D	SD
[35]	j.	Women should avoid politics and community activities and put more time into doing a better job with their own families	SA	A	?	D	SD
[36]	k.	It is difficult for a woman to have a career and still keep her femininity	SA	A	?	D	SD
[37]	l.	Raising children is more a mother's job than a father's	SA	A	?	D	SD
[38]	m.	Having a challenging job or career is as important for women as being a wife and mother	SA	A	?	D	SD
[39]	n.	The employment of mothers leads to juvenile delinquency	SA	A	?	D	SD

[40] o. Most jobs can be done as well by women as men . . . . SA A ? D SD

[41] p. Except in special cases, the wife should do the cooking and housecleaning and the husband should provide the family with money . . . SA A ? D SD

[42] q. There is nothing more fulfilling to a woman than the raising of her children . . . . SA A ? D SD

[43] r. If the husband is working to support the family, his wife has no right to expect him to work while he's home . . . . SA A ? D SD

[44] s. A man who helps around the kitchen is doing more than should be expected . . . . SA A ? D SD

[45] t. A woman's greatest natural ability lies in being a mother . . . . . SA A ? D SD

[46] u. Women would rather work for men than other women . . . . SA A ? D SD

[47] v. College education is more important for men than for women . . . . SA A ? D SD

[48] w. A husband has more respect for his wife if she has a career . . . . SA A ? D SD

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The Pennsylvania State University
Institute for Research on Human Resources
University Park, Pennsylvania

1855

[Card 1 2-6]

PARENTAL ATTITUDES
TOWARD
HIGH SCHOOL CAREER PLANNING

CONFIDENTIAL: FOR RESEARCH USE ONLY

Directions: This questionnaire concerns your opinions of the education and career plans of your son or daughter. Anytime a question asks about son/daughter it refers to the one whose name is on the mailing label of this questionnaire.

The questionnaire also has some items on family background and the roles that men and women should play in the family and in jobs.

Most questions can be answered by putting an "X" or checkmark (✓) in the box that best reflects your opinion. You may decline to answer any question. All answers will be held in strict confidence.

Please sign your name on the following line to indicate your willingness to take part in the survey.

Signature ____________________

Date ____________________

BACKGROUND INFORMATION

1. Who is completing this questionnaire?

[7] ☐ Mother ☐ Father ☐ Guardian, other
1 2 3

2. What is the usual occupation of father (or the male head of household)? What kind of work does he usually do?

[8-9] ____________________

____

☐ There is no male head of the household
00

☐ Father usually cannot work
99

3. How many of the years that your son/daughter has been in school has mother (or the female head of household) held a regular job outside of the house? (By "regular" we mean a full-time or part-time job at which she worked at least six months per year.) ______ years of work
[10]

☐ There is no female head of household--SKIP to Question 5
0

☐ Mother never held a regular job--SKIP to Question 5
0

4. What is the usual occupation of mother (or female head of household)?
[11-12]

____

____

5. What is the highest level of education you and your spouse (husband or wife) reached?

Level I reached [13]
Level spouse reached [14]

1 ☐ ☐ None, or some grade school
2 ☐ ☐ Completed grade school, 6th grade
3 ☐ ☐ Some high school (7-12), but not a graduate
4 ☐ ☐ Graduated from high school
5 ☐ ☐ Vocational or business school after high school
6 ☐ ☐ Some college, but not a graduate
7 ☐ ☐ Graduated from regular 4-year college
8 ☐ ☐ Graduate or professional school after college
9 ☐ ☐ I don't know

6. When your son/daughter was growing up, how would you describe your general approach to discipline?

[15]
- ☐ 1 Made my child obey much more than average parent does
- ☐ 2 Made child obey slightly more than average
- ☐ 3 Made child obey about average amount
- ☐ 4 Made child obey slightly less than average
- ☐ 5 Made child obey much less than average

7. Please check the kinds of toys your son/daughter usually played with when he/she was a small child. (Check all that apply)

1
- ☐ BB Guns [16]
- ☐ Blocks [17]
- ☐ Building sets [18]
- ☐ Doctors' kits [19]
- ☐ Dolls [20]
- ☐ Doll houses [21]
- ☐ Electric trains [22]
- ☐ Model kits (cars, ships, etc.) [23]
- ☐ Science kits [24]
- ☐ Sports equipment [25]
- ☐ Toy cars, trucks [26]
- ☐ Toy dishes, pots and pans [27]
- ☐ Toy tool kits [28]
- ☐ Other (What?) ____ [29]

____

____

8. How independent a person would you say your son/daughter is compared to others his/her age?

[30]
- ☐ 1 Much more independent
- ☐ 2 Slightly more independent
- ☐ 3 About average independence
- ☐ 4 Slightly less independent
- ☐ Much less independent

9. How self-confident a person would you say your son/daughter is compared to others his/her age?

[31]
- ☐ 1 Much more self-confident
- ☐ 2 Slightly more self-confident
- ☐ 3 About average self-confidence
- ☐ 4 Slightly less self-confident
- ☐ 5 Much less self-confident

10. Please check each of the household tasks that your son/daughter usually does or used to do when he/she was younger. (Check all that apply)

1
- ☐ Carry out trash, garbage [32]
- ☐ Clean the house [33]
- ☐ Cook meals [34]
- ☐ Do the ironing [35]
- ☐ Do the laundry [36]
- ☐ Make beds [37]
- ☐ Make small repairs on the house [38]
- ☐ Mend clothes, sew buttons [39]
- ☐ Mow the lawn [40]
- ☐ Shop for groceries [41]
- ☐ Take care of family car [42]
- ☐ Take care of younger children [43]
- ☐ Wash and dry dishes [44]

CONTACT WITH SCHOOL

---

11. Did your son/daughter ever discuss what he/she wanted to study in high school with you or your spouse?

[45] ☐ 1 Yes ☐ 2 No ☐ 3 Don't remember

12. Did you or your spouse ever discuss your son/daughter's course of study with anyone from the high school?

[46]

☐ No, never discussed
0

☐ Yes, discussed with--
1 (Check all that apply)

1
- ☐ Guidance counselor [47]
- ☐ Teacher [48]
- ☐ Principal or director [49]
- ☐ Other (Who?) ____________________

________________________________ [50]

13. Did your son/daughter ever want to take a course of study that you were opposed to?

[51] 1 ☐ Yes 0 ☐ No → SKIP to Question 14

a. What was that course of study? ____

[52-53] ________________________________

b. Why were you opposed? (Check all that apply)

1
- ☐ Course not appropriate for son/daughter [54]
- ☐ Wanted son/daughter to prepare for employment [55]
- ☐ Course of study was inadequate [56]
- ☐ Wanted son/daughter to prepare for college [57]
- ☐ Other (Why?) ____________________

________________________________ [58]

14. Was your son/daughter ever prevented from taking a course of study because of a school rule or regulation?

[59]

☐ No, never prevented
0

☐ Yes (Check reasons why)
1

1
- ☐ Class was too full [60]
- ☐ Boys or girls not allowed to take certain courses [61]
- ☐ Conflict with other courses [62]
- ☐ Other (Specify) ____________________

____

________________________________ [63]

15. Overall, how satisfied are you with your son/daughter's education?

[64]

☐ Very satisfied
1

☐ Satisfied
2

☐ Neutral, neither satisfied nor
3 dissatisfied

☐ Dissatisfied
4

☐ Very dissatisfied
5

a. Why are you dissatisfied?

____

____

____

____

________________________________ [65-67]

CAREER PLANS

16. Have you ever tried to influence your son/daughter toward certain occupations?

[68]

☐ No
0

☐ Yes (Check all methods used)
1 1

- ☐ By giving appropriate toys, kits, books, etc. [69]
- ☐ By pointing out successful examples [70]
- ☐ By encouraging related hobbies, activities, or part-time jobs [71]
- ☐ Through discussions [72]
- ☐ Other (What ways?) ______________

____

______________________________ [73]

17. Is there any particular type of occupation you would like to see your son/daughter enter?

☐ No
00

☐ Yes → What kind? ______________
[74-75]

____

____

18. As best you can recall, what was the first occupation your son/daughter seriously considered entering? ______________
[76-77]

____

☐ Son/daughter never expressed serious
00 interest in any occupation

19. To your knowledge, did your son/daughter ever think seriously about entering an occupation that is not traditional for his/her sex? (For example, a female becoming an auto mechanic or a male becoming a secretary.)

☐ Yes ☐ No → SKIP to Question 20
↓ 00

a. What occupation did he/she consider?
[78-79]

____

[Card 2 2-6]

b. How did you feel about this occupation for your son/daughter?
[7]

☐ In favor, encouraged him/her
1

☐ Had some doubts but left decision
2 to him/her

☐ Was opposed, discouraged him/her
3

☐ Other (Specify) ______________
4

____

20. What occupation is your son/daughter now working at or preparing to enter?
[8-9]

____

☐ Son/daughter has not decided on an
00 occupation

21. How satisfied are you with this choice?
[10]

☐ Very satisfied
1

☐ Satisfied
2

☐ Neutral, neither satisfied nor
3 dissatisfied

☐ Dissatisfied
4

☐ Very dissatisfied
5

☐ Son/daughter has not made a choice
6

ROLES OF MEN AND WOMEN

22. Listed below are some statements about the roles that men and women should play in society. Please read each statement, then indicate how much you agree or disagree with it by circling one of these responses:

SA = Strongly Agree
A = Agree
? = Undecided
SD = Strongly Disagree
D = Disagree

		1	2	3	4	5
[11] a.	Most girls become housewives and rarely work outside the home	SA	A	?	D	SD
[12] b.	Most executive jobs can be handled better by men	SA	A	?	D	SD
[13] c.	A woman must get married to feel completely fulfilled	SA	A	?	D	SD
[14] d.	Being a housewife just isn't enough to keep a woman happy	SA	A	?	D	SD
[15] e.	Women should stick to "women's" jobs such as teaching, nursing, and secretarial work and not compete with men	SA	A	?	D	SD
[16] f.	A wife should devote a lot of her time to satisfying her husband	SA	A	?	D	SD
[17] g.	Most women have a low estimate of their own ability to perform in difficult jobs	SA	A	?	D	SD
[18] h.	A woman should be able to hold and be promoted in any job she prepares herself for	SA	A	?	D	SD
[19] i.	A man ought to feel free to relax when he gets home from work	SA	A	?	D	SD
[20] j.	Women should avoid politics and community activities and put more time into doing a better job with their own families	SA	A	?	D	SD
[21] k.	It is difficult for a woman to have a career and still keep her femininity	SA	A	?	D	SD
[22] l.	Raising children is more a mother's job than a father's	SA	A	?	D	SD
[23] m.	Having a challenging job or career is as important for women as being a wife and mother	SA	A	?	D	SD
[24] n.	The employment of mothers leads to juvenile delinquency	SA	A	?	D	SD

[25]	o.	Most jobs can be done as well by women as men	SA	A	?	D	SD
[26]	p.	Except in special cases, the wife should do the cooking and housecleaning and the husband should provide the family with money	SA	A	?	D	SD
[27]	q.	There is nothing more fulfilling to a woman than the raising of her children	SA	A	?	D	SD
[28]	r.	If the husband is working to support the family, his wife has no right to expect him to work while he's home	SA	A	?	D	SD
[29]	s.	A man who helps around the kitchen is doing more than should be expected.	SA	A	?	D	SD
[30]	t.	A woman's greatest natural ability lies in being a mother	SA	A	?	D	SD
[31]	u.	Women would rather work for men than other women	SA	A	?	D	SD
[32]	v.	College education is more important for men than for women	SA	A	?	D	SD
[33]	w.	A husband has more respect for his wife if she has a career	SA	A	?	D	SD

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APPENDIX C

TABLES

APPENDIX TABLE C-1

Varimax Rotation of Factor Loadings of Indicator of Socioeconomic Status, Current Student Questionnaire

Indicators	Factor Loadings	
	Possessions	Occupation/ Education
Father's occupation (Q6)	.20	.52
Father's education (Q9)	-.07	.75
Mother's education (Q14)	.11	.60
Daily paper delivered[a] (Q16)	-.32	-.30
Magazine subscriptions (Q17)	.23	.27
Number of books in home (Q18)	.39	.38
Number of rooms in home (Q19)	.54	.21
Family possessions (Q20)		
Automobile	.40	.01
Automatic clothes washer	.64	.13
Automatic clothes dryer	.66	.25
Electric dishwasher	.42	.32
Home food freezer	.28	.07
Hi-fi or stereophonic set	.34	.03
Desk at which student studies	.46	.20
Set of encyclopedias	.47	.06
Telephone	.46	.22
Percent of variance explained	22%	6%

[a] This indicator was coded so that a low score indicated daily delivery.

APPENDIX TABLE C-2

Rotated Factor Matrix of Self Esteem Items
All Current Students

Items from Question Number 72	Negative Items	Positive Items
cc. I have often had the feeling that it is no use to try to get anywhere in this life.	.59	.19
ee. At times I think I am no good at all.	.57	.34
m. All in all, I am inclined to think I am a failure.	.55	.35
r. I seem to be the kind of person who has more bad luck than good luck.	.53	.19
y. There is not much use for me to plan ahead because there is usually something that makes...	.53	.05
hh. I certainly feel useless at times.	.51	.34
n. I feel I do not have much to be proud of.	.46	.34
i. I would rather decide things when they come up than always try to plan ahead.	.40	-.05
t. I wish I could have more respect for myself.	.35	.12
s. I feel I have a number of good qualities.	.26	.63
h. I take a positive attitude toward myself.	.23	.62
o. I nearly always feel pretty sure of myself even when people disagree with me.	.14	.49
e. I have always felt pretty sure my life would work out the way I wanted it to.	.19	.48
jj. I have always felt I have more willpower than most people have.	.06	.48
w. I never have any trouble making up my mind about important decisions.	-.01	.47
b. I am able to do things as well as most people.	.18	.40
ll. I feel that I am a person of worth, at least on an equal plane with others.	.32	.39
Percent total variance explained	15%	15%

Note: N = 448.

APPENDIX TABLE C-3

Intercorrelations of Student and Parent Reports of Household Tasks Usually Performed

	Student													Parents												
Student	CT	CH	CM	DI	DL	MB	MR	MC	ML	SG	TC	TY	WD	CT	CH	CM	DI	DL	MB	MR	MC	ML	SC	TC	TY	WD
CT																										
CH	-01																									
CM	02	49																								
DI	-10	52	42																							
DL	-02	55	43	52																						
MB	06	41	18	34	31																					
MR	24	-01	06	-01	04	03																				
MC	-04	50	36	51	46	46	-01																			
ML	38	-17	-17	-28	-18	-11	33	-26																		
SG	13	33	41	24	32	12	10	38	-04																	
TC	20	-15	-08	-10	-14	-05	33	-04	31	-13																
TY	-11	38	32	34	34	24	-01	34	-18	27	04															
WD	10	53	40	41	45	34	-05	44	-13	28	-18	25														
Parents																										
CT	27	-06	-08	-11	-12	-11	17	-21	25	-03	25	-07	-10													
CH	-08	42	21	33	32	19	-06	26	-15	12	-21	22	33	07												
CM	-08	33	30	29	32	09	-01	23	-09	15	-20	21	24	08	47											
DI	-08	34	20	42	33	19	-10	26	-20	08	-20	17	30	12	48	52										
DL	-03	39	19	26	45	15	-04	21	-16	12	-13	17	28	08	53	54	58									
MB	-04	31	12	20	19	33	-04	19	-07	09	-12	18	26	17	53	34	28	37								
MR	14	-09	-07	-26	-11	-10	38	-15	21	04	25	-06	-15	28	-06	05	-06	-03	00							
MC	-11	33	23	28	26	13	-10	34	-19	09	-14	26	24	-05	43	41	46	38	25	-08						
ML	28	-30	-22	-34	-30	-22	21	-36	56	-11	27	-17	-26	44	-10	-06	-16	-10	00	31	-23					
SG	-01	23	16	09	15	04	04	10	00	25	-07	11	13	20	37	51	43	44	30	11	30	06				
TC	18	-18	-04	-20	-20	-10	19	-19	-18	08	31	-15	-16	34	00	07	-01	01	09	43	-13	31	26			
TY	-17	29	20	14	15	14	-12	12	-26	12	-10	50	21	-02	29	27	32	33	23	-01	29	-13	27	03		
WD	-09	37	25	35	28	24	-13	27	-16	14	-29	23	42	06	64	37	39	40	51	-13	32	-09	31	-11	31	

N = 336

r > 09 Significant .05 level

r > 13 Significant .01 level

r > 16 Significant .001 level

Decimals omitted

APPENDIX TABLE C-4

Intercorrelations of Student and Parent Reports of Toys Usually Played with as a Young Child

	Student													Parent											
	BB	B1	BS	DK	D1	DH	ET	MK	SK	SE	TC	TD	TT	BB	B1	BS	DK	D1	DH	ET	MK	SK	SE	TC	TD
Student																									
BB																									
B1	-06																								
BS	17	38																							
DK	-13	24	17																						
D1	-42	09	-13	27																					
DH	-38	07	-14	33	77																				
ET	30	15	24	-03	-29	-26																			
MK	39	08	25	-12	-49	-48	52																		
SK	27	12	26	07	-18	-18	29	29																	
SE	31	06	32	04	-30	-25	28	33	24																
TC	26	15	29	-04	-44	-41	40	47	14	31															
TD	-38	15	-06	29	81	76	-26	-50	-20	-29	-44														
TT	32	20	38	13	-38	-33	41	46	29	34	47	-31													
Parents																									
BB	50	-01	06	-13	-36	-32	19	32	17	18	18	-37	17												
B1	06	27	21	-04	-02	-05	06	01	-01	06	09	-05	06	06											
BS	18	12	30	-10	-29	-26	20	29	19	20	28	-35	19	22	40										
DK	-11	04	09	37	16	19	00	-12	-08	01	03	14	-05	-10	20	10									
D1	-38	06	-14	21	74	63	-32	-47	-32	-29	-43	70	-39	-36	13	-24	27								
DH	-34	06	-17	19	61	66	-19	-46	-29	-25	-36	62	-36	-28	07	-20	27	72							
ET	28	04	11	-10	-45	-39	41	45	18	18	30	-48	29	38	12	28	-01	-43	-33						
MK	37	-05	19	-19	-56	-57	32	54	23	27	39	-63	33	40	07	43	-08	-53	-50	52					
SK	18	06	17	02	-24	-18	19	20	41	10	18	-21	18	18	11	27	15	-21	-13	26	31				
SE	29	00	16	-06	-38	-31	18	26	19	33	24	-40	21	29	20	31	05	-32	-26	36	34	30			
TC	29	01	21	-14	-50	-43	27	39	15	25	45	-50	24	32	22	37	-03	-44	-36	46	50	23	39		
TD	-39	05	-14	20	66	60	-31	-50	-30	-36	-43	66	-42	-33	14	-24	28	82	70	-39	-53	-17	-30	-41	
TT	32	00	21	-12	-45	-41	26	34	20	23	33	-45	36	33	14	36	02	-36	-32	38	45	25	37	50	-35

N = 336
$r > 09$ significant .05 level
$r > 13$ significant .01 level
$r > 16$ significant .001 level
Decimals omitted

APPENDIX TABLE C-5

Weighting for "Usual Toys" Index

Toys	Males	Females	Difference M-F	Index Weight[a]
	%	%	%	
B B guns (BB)	57.7	11.9	45.8	2.9
Blocks (Bl)	72.3	70.3	2.0	dropped
Building sets (BS)	73.7	50.8	-22.9	.6
Doctors' kits (DK)	23.4	49.2	-25.8	- .9
Dolls (Dl)	11.7	94.1	-82.4	-6.5
Doll houses (DH)	2.2	77.1	-74.9	-5.6
Electric Trains (ET)	65.7	17.8	47.9	3.1
Model kits (MK)	82.5	17.8	64.7	4.8
Science kits (SK)	46.7	15.3	31.4	1.4
Sports equipment (SE)	82.5	45.8	36.7	2.0
Toy cars, Trucks (TC)	92.7	39.8	52.9	3.6
Toy dishes (TD)	6.6	89.8	-83.2	-6.6
Toy tool kits (TT)	67.9	17.8	50.1	3.3
Base Number	137	118		

[a] The difference was reduced by 17 percentage points, the difference necessary to be statistically significant at the .01 level, and multipled by .10 to yield a weight rounded to one decimal place.

The index was calculated by multiplying the coded answer (0 or 1) by the weight and adding 20

$$\text{Index} = \Sigma(\text{Code} \times .10D_{M-F}) + 20$$

The constant 20 was added to avoid negative scores. Sum all of negative weights is -19.6. Sum of all positive weights is 21.7.

Maximum Score 21.7 + 20 = 41.7, Minimum Score 20.0 - 19.6 = .4

APPENDIX TABLE C-6

Varimax kotation of Factor Matrix for Tasks Usually Performed in the Home by Current Students

Tasks	Female Factor	Male Factor
Carry out trash, garbage (CT)	-.01	.39
Clean the house (CH)	.71	-.20
Cook meals (CM)	.53	.03
Do the ironing (DI)	.71	-.08
Do the laundry (DL)	.71	-.09
Make beds (MB)	.41	-.13
Make small repairs on the house (MR)	-.08	.69
Mend clothes, sew buttons (MC)	.68	-.19
Mow the lawn (ML)	-.25	.48
Shop for groceries (SG)	.44	.17
Take care of family car (TC)	-.08	.66
Take care of younger children (TY)	.41	.01
Wash and dry dishes (WD)	.55	-.21
Percent total variance explained	24	11

Factor Analysis: School Satisfaction

Appendix Table C-7 indicates that there was considerable intercorrelation, especially in items 33 through 38, which were asked of all current students. Fairly high intercorrelations also held among items that were asked only of those students taking regular vocational programs (questions 50, 52, and 58 - 61). These two groups of items, however, had much lower intercorrelations with each other. (Current students' questionnaire is included as Appendix B-4.)

The factor analysis confirmed the patterns that were detected by examining the intercorrelation matrix. The first factor analysis was performed only on the vocational students because they were the only ones who responded to all twelve items. This analysis (see Appendix Table C-8) revealed two fairly distinct factors. The first had its highest loadings on items that referred to general satisfaction with the education the students were receiving. The second factor had its highest loadings on those items that referred to vocational courses only. Among the vocational students, it thus appeared that two basic response tendencies determined their answers to the individual items: a general satisfaction factor, and a vocational satisfaction factor.

After these two factors were identified, two separate analyses were conducted. The first was performed on the general satisfaction items using all current students, and the second on the vocational items using the vocational students only. The patterns from these analyses, also shown in Appendix Table C-8, were used to generate the factor scores reported in Tables 5-9 and 5-10 in the text. The factor scores were standardized, as discussed in Chapter 3, to a mean of 50 with a standard deviation of 10. The distributions on the vocational factor are even more clustered than the general satisfaction factor because the mean is very close to the highest possible score.

APPENDIX TABLE C-7

Intercorrelations of Attitudes Toward School Items, All Current Students and Current Vocational Students Separately

					Item						
Items (Questionnaire Number)	33	34	35	36	37	38	50	52	58	59	60
Overall, how well like school (33)		.36	.39	.28	.30	.48					
How much learning from courses (34)	.39		.41	.33	.49	.51					
How hard school trying to prepare (35)	.42	.40		.26	.37	.56					
How hard you trying to prepare (36)	.26	.29	.25		.36	.32					
How useful will courses be (37)	.32	.45	.40	.32		.50					
Overall how satisfied education (38)	.46	.49	.54	.29	.54						
How interesting are courses (50)	.16	.32	.18	.20	.32	.25					
How hard teachers try to help (52)	.15	.36	.33	.12	.26	.36	.38				
Recommend courses to males (58)	.14	.06	.01	.03	.02	.14	.27	.11			
Recommend courses to females (59)	.12	.13	-.01	.01	.03	.06	.24	.07	.32		
Overall, satisfied with courses (60)	.31	.39	.29	.16	.33	.43	.55	.46	.33	.16	
Would choose these courses again (61)	.15	.20	.12	-.02	.25	.14	.36	.21	.40	.25	.43

Note: Correlations on first six items above diagonal based on all usable responses, N=500; correlations on all 12 items below diagonal based on all usable responses from vocational students only, N=326.

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APPENDIX TABLE C-8

Factor Analysis of Satisfaction with School Items, Vocational Students and All Students Current Student Questionnaire

Items	First Analysis[a]		Second Analysis[b]	
	General Factor	Vocational Factor	General Factor	Vocational Factor
All students responded				
Overall, how well like school (Q33)	.53	.13	.56	-
How much learning from courses (Q34)	.64	.20	.68	-
How hard school trying to prepare (Q35)	.67	.02	.64	-
How hard you trying to prepare (Q36)	.42	-.00	.46	-
How useful will courses be (Q37)	.63	.14	.64	-
Overall, how satisfied with education (Q38)	.77	.13	.80	-
Vocational students responded				
How interesting are courses (Q50)	.31	.57	-	.68
How hard teachers try to help (Q52)	.41	.31	-	.46
Recommend courses to males (Q58)	-.01	.58	-	.48
Recommend courses to females (Q59)	-.00	.41	-	.34
Overall, satisfied with these courses (Q60)	.45	.61	-	.77
Would you choose these courses again (Q61)	.11	.63	-	.59
Percent of variance explained	29%	10%	41%	33%

[a] First analysis performed on vocational students only.

[b] Second analysis performed on all students for general factor and vocational students only for vocational factor.